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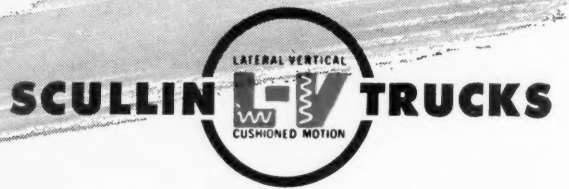


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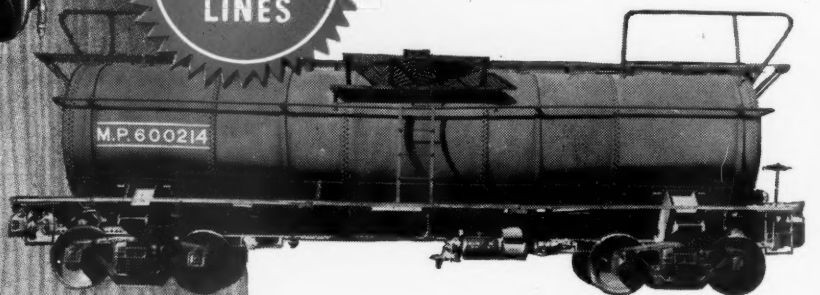


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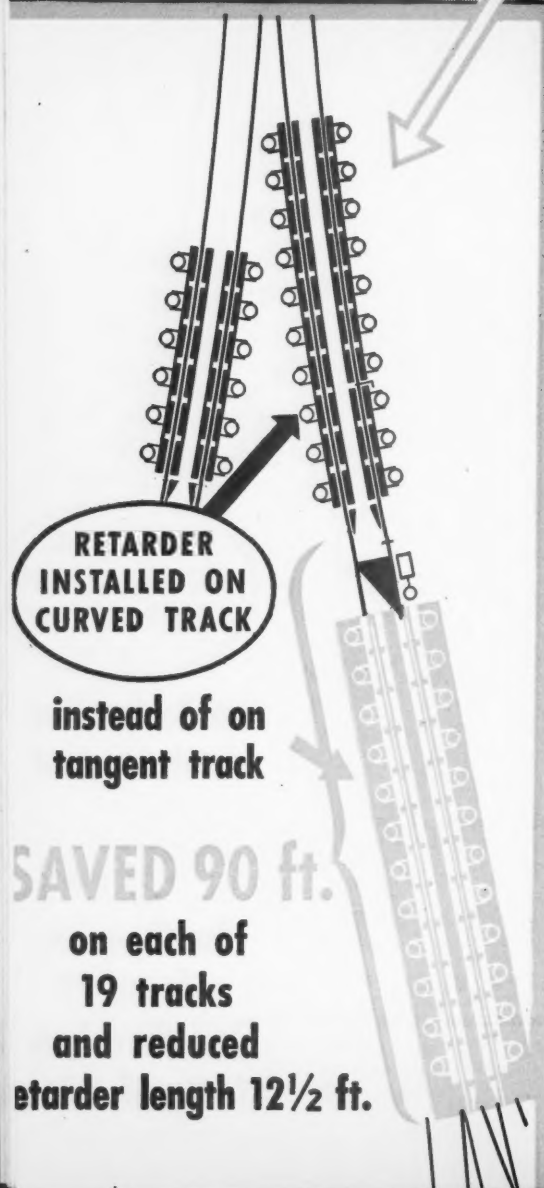
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The Week at a Glance

FINAL ARGUMENT: The commission has been listening this week to the summing up by the lawyers of the views of the different parties in the Ex Parte 166 proceedings whereby the railroads seek approval of a permanent freight-rate increase averaging about 30 per cent. Particularly significant was the statement of counsel for the important shippers represented by the N. I. T. League, who asked the commission to increase railroad rates sufficiently to enable the carriers to produce efficient transportation. What the league wants is better service, and it expects to have to pay for it. Almost a lone voice was that of the Department of Agriculture's lawyer, still contending, in effect, that the private enterprise system is all wrong because it aims to produce a profit for those who provide capital. The state commissioners' counsel offered the I. C. C. a choice between Dr. Parmelee's estimates and those of Dr. Gilbert (late of the O. P. A.)—not exactly the most difficult decision the commission ever has been called upon to make. (A full review of the arguments appears in the news pages of this issue.)

BRAINERD CAR PLANT: New facilities for the repair and construction of freight cars are in operation on the Northern Pacific at Brainerd, Minn. One of our illustrated articles (page 50) describes the buildings and equipment. In planning the new installation the goal was an arrangement that would allow the progressive spot system to be used in both the fabricating and the repair sides of the plant, facilitating concentration on either new work or rebuilding or allowing both to go on simultaneously and efficiently.

UNDERMAINTENANCE: Figures recently released by the Interstate Commerce Commission show that the railroads should have spent about \$450 million more than they have on track material, that is, ties, rail, ballast, and tracklaying and surfacing. In the opinion of the Bureau of Valuation, this undermaintenance is the result of wartime and postwar labor and material shortages. An article on page 60 in this issue digests the bureau's findings.

WANTED—EVERYTHING: There is hardly any limit to the needs of the railroads of South America for materials and machinery and equipment of every kind, according to an article by Seymour T. R. Abt of the Department of Commerce, the first part of which appears in this issue. The difficulty there, of course, is the familiar one—lack of funds with which to pay for what they need. The article outlines plans that are more or less definitely formulated for the construction of new lines in many parts of the continent, and for the rehabilitation of others now in service, and indicates that new mileage is being added constantly. The most immediate problem, however, is to tune up the existing railroads so they can carry more traffic. Materials in immense quantities and of every variety will be required, and their purchase may be simplified, in some cases, be-

cause practically all railroads on the continent are state operated—and therefore are under less compulsion than privately operated roads to keep revenues in excess of expenses.

COURT BALKS UNION: Further attempts have failed to get around the Supreme Court's decision that it is illegal for the firemen's brotherhood to require the railroads to limit the number of negro firemen employed and to restrict their assignments (allegedly to prevent their exercise of seniority to bid in preferred runs, particularly on Diesels). The latest action of the court in this matter is reported in the news columns herein.

NO NEW MONEY: The railroads are making capital expenditures this year as large as they have ever made in any year, and estimates of next year's first-quarter outlays are far ahead of the equivalent 1947 figure. These expenditures ought to be larger than they are in order to produce a railroad plant adequate to the country's need for efficient transportation. The alarming element in the situation, however, is the source of capital funds that the railroads are spending—they are derived from wartime earnings, except that equipment purchases on the installment plan are anticipating future earnings. Investors are not providing any of the new money going into fixed railway plant, our leading editorial points out, and that is a condition that cries out for correction.

THE SYSTEM IS AT FAULT: A comprehensive, reasonable and explicit statement of the national transportation policy has been formulated by Congress. The goal established in that statement never has been achieved, however, in the 27 years since the government first formally recognized its positive obligation to foster the legitimate progress of the railroads. The goal has not been attained because the system used by the government in its treatment of the transportation industry does not work. Investors know that it never has worked, and that the gap between the goal and the achievement is widening. The way to revive the interest of private capital in the railroad industry is to devise and to put into effect a system that does realize the stated purpose of the national transportation policy. That must be done soon, our editorial warns, or American railroads can be expected to follow those of the rest of the world into socialization.

IN THE BACK OF THE BOOK: Hundred-plus Diesel-electric orders continue; this week's list includes the Pennsylvania and New York Central. . . . Publication of a 10 per cent express rate increase has been authorized, subject to protest and possible suspension. . . . Gross in November is estimated at 13 per cent above the 1946 month. . . . The Army's locomotive and freight car development plans have been disclosed. . . . The Reading has started improvements at its Philadelphia passenger terminal to cost more than \$1 million.

NEW CARS FOR NEW ENGLAND: With 24 new passenger cars the Boston & Maine and Maine Central have been able to re-equip their fast Diesel-powered name trains operating between Boston, Mass., and Portland and Bangor, Maine, providing travelers in that territory with coach and restaurant-lounge facilities of the latest type. Full descriptions of these products of Pullman-Standard's Worcester plant appear in the illustrated article on page 44. Special attention has been devoted to seating and lighting, and to the heating and air-conditioning equipment, to obtain the maximum degree of comfort for passengers; and spacious glass-partitioned compartments have been provided to facilitate the segregation of those who do smoke from those who don't. Color schemes and decorative treatment are the result of equally careful planning. Kitchens in the restaurant cars have continuous hot water available at two temperatures for washing and rinsing dishes, and propane is used for cooking and refrigeration (in part) to reduce the electrical load.

BIG BUS SYSTEM: The Interstate Commerce Commission has approved plans for setting up, as a competitor to the Greyhound and American systems, the new Transcontinental Bus System, in which the Santa Fe will have a 39 per cent stock interest. The new company will take over Santa Fe Trail's bus operations, as well as those of other companies, chiefly in the Southwest, in a set-up described in our news pages this week.

A-BOMB IN DISGUISE: A complete revolution of this country's economy will be effected, in the judgment of our contributor, Leon Leighton, if the Federal Trade Commission succeeds in what he describes as a crusade to destroy all national and regional markets, restricting each producer, big or little, to selling in his own neighborhood. Citing chapter and verse, he explains in an article (the first part of which appears this week on page 55) how the commission is applying this doctrine in the so-called cement case, now before the Supreme Court. If upheld by that court and applied to other industries, this commission policy would destroy industries and wreck whole communities. Because it would cut their freight revenues at least \$922 million a year, he estimates, it would effectively paralyze the nation's railroads. These grave charges are supported by the analysis of the commission's program made by the circuit court of appeals, now being reviewed by the Supreme Court.

VALUE OF LIGHT: With so many industries competing with the railroads for labor, the carriers, says one of our editorials, cannot afford to leave undone anything to improve the working conditions they offer. One thing that is being done, though not universally, is to provide better artificial lighting. It is suggested that more data could be made available to show how this better lighting pays.



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A System Which Doesn't Work

The system of providing transportation by private enterprise under government regulation no longer exists anywhere else in the world on a large scale except on the North American continent—and, even here, only an incurable optimist would contend that the system is operating satisfactorily. Experience had already demonstrated more than a half-century ago that unfettered competition will not work in the transportation business, as it does in most other businesses, to produce prices (i. e., rates) which foster the prosperity of the producer while protecting the consumer from extortion and discrimination. As a result of that experience, government regulation was introduced to supply artificially the policing of prices and service which competition showed it could not provide.

A Statement Noble in Purpose

Government regulation, once begun, steadily increased in severity—and was largely punitive and restrictive until 1920, when the Transportation Act of that year gave the Interstate Commerce Commission the duty, not merely of preventing the railroads from misbehaving and chastising them for their misdeeds, but also the positive obligation to foster their legitimate progress in the public interest. This declaration of "national transportation policy," as subsequently amended, is sufficiently comprehensive, reasonable, and explicit regarding the *purpose* of government dealings with transportation to meet the demands of the most exacting. This purpose is declared to be "developing, coordinating, and preserving a national transportation system by water, highway, and rail as well as other means, adequate to meet the needs of the commerce of the United States, of the postal service, and of the national defense." The statement of policy also favors "sound economic conditions in transportation" and abjures "destructive competitive practices."

So much for the *goal* of national transportation policy. No one with any knowledge of conditions would contend that this goal is being achieved. Instead, it is receding. For an entire decade, 1930 to

1940, the nation—committed to the objective of assuring the adequacy of its transportation facilities—stood by, doing nothing, while the railroad industry suffered an actual shrinkage in plant. The country went into the greatest of wars with that shrunken railroad plant, avoiding disaster only because the "Gormley miracle" of traffic control came along to squeeze the last ounce of capacity out of available facilities.

Today, all users of transportation are acutely aware that there is a shortage of facilities; and that it is in the railroads—and not waterways or highways or airports, on which taxpayers' money is spent so lavishly—where the shortage exists. The railroads are doing their desperate best to remedy the deficiency. In 1947, sixteen years since the industry's stocks have sold at an average as high as par, the railroads are making capital expenditures as large as those ever made in any year in history. But, except for equipment, these outlays are being made wholly from earnings accumulated during the war years. There is no new money from investors going into fixed railway plant—and earnings alone, even if they were double what they are today, would be insufficient to provide the sustained capital expansion so plainly needed to bring railroad service abreast of the needs of commerce and the national defense.

What Investors Fear

If the railroads are, once again, to provide adequately for the needs of their customers, commercial and governmental—and are going to do so under private ownership rather than under socialism—then the willingness of private investors to put new money into the industry's fixed plant must be revived. These investors can certainly not be holding back—as perhaps they did in the 1930's—for fear that the nation's need for railroad service has dwindled. Their shyness today cannot arise from fear of declining demand, but only from a fear, born of sad experience, that government treatment of the railroads will deny to the suppliers of capital a reasonable return and reasonable safety of principal.

Such fear on the part of investors, and its unfavorable consequences to the public interest in securing adequate transportation, could not exist if the *means* employed by the government in its treatment of transportation were effectively designed to achieve the *goal* of the national transportation policy.

The First Corrective Step

Right now, principal attention on the inadequacy of means being employed by the government in its treatment of transportation is properly focused on rate regulation. It is axiomatic that government regulation, if it is to succeed, must establish in the regulated industry conditions similar to those which normal and healthy competition establishes in unregulated industry. In unregulated industry, prices respond immediately to increased costs. The Interstate Commerce Act, section 15(7), permits the I. C. C. to suspend a proposed rate increase for seven months. By contrast, if a wage dispute results in the appointment of an "emergency board," the board is allowed (Railway Labor Act, section 10) only 30 days in which to investigate and report its findings.

At the moment, probably no change in government policy toward the railroads is so obviously required as one to provide by law for as much speed in authorizing increased charges as is permitted and even prescribed in increasing labor costs. But such a provision would do nothing to correct conditions which—over a term of years—are just as inimical to railroad progress as laggard action on rates, e.g., the absence, because of subsidies, of "sound economic conditions in transportation"; and the insistence upon "destructive competitive practices" in the industry by the Department of Justice.

The system of government regulation of transportation is proving just about as much of a failure in safeguarding the public interest in the welfare of the industry as did the system of unfettered competition, long ago discarded. There is nothing inherently wrong with regulation. The trouble lies in the ineffectiveness of the means so far employed to attain the announced objectives of the national policy.

Dollar Value of Light

A short time ago, a superintendent of motive power was asked if the new lighting system in his backshop and machine shop had proved satisfactory. In reply, he reached for production figures and showed that more locomotives were put through the shop in the three months before the lights had been installed than in the three months with the improved lighting. This incident is offered to illustrate the first reason why it is difficult to attach a money value to good lighting; the difference in production figures was due to circumstances outside the shop control.

Good light is supposed to promote safety, but this is hard to prove. Under most circumstances, accidents within a given area which can be lighted occur so infrequently that it takes a long time to collect an adequate amount of data to prove the point. But in one instance

authorative figures are available. E. E. Dorting, supervisor of lighting, New York Subway System, made some radical changes in station and platform lighting. Records of accidents were kept, both before and after the installation. Foot traffic was so heavy that data accumulated rapidly. In a relatively short time, it was possible to show that accidents had been reduced 52 per cent, no changes other than in the lighting having been made.

More recently a record of automobile traffic accidents was made in Detroit. The results indicated that the poorer visibility at night was responsible for an accident increase of 18.5 per cent. Railroad crossing lighting with sodium luminaires on the Niagara Junction Railway at Niagara Falls, N. Y., reduced night accidents practically to zero and made night safer than day.

It is claimed that good lighting is a morale builder and causes increased production. This is most difficult to prove. Test subjects are inclined to respond with greater effort when they think something is being done for them.

Whatever the reason, railroads are making some radical changes in lighting. A Pennsylvania installation of shop lighting, made in 1946, trebled lighting intensities and improved lighting distribution. An A.A.R. report on this installation states it has improved the output of the shop materially and that it has reduced inferior workmanship and made a marked reduction in reportable as well as unreportable accidents.

New shop lighting on the Burlington in 1946 has resulted in lighting levels of 16 to 22 footcandles. These have been made in conjunction with the use of dynamic or functional coloring of floors, walls, ceilings and machinery. The most obvious gain in this instance, since it is new and cannot be compared with an old installation, is that the shop forces keep floors and machines in much cleaner condition.

The most recent data have been obtained from the Chesapeake & Ohio. Light and color have been used in the shops at Huntington, W. Va., with the result that production has increased, rejections due to inaccuracy have dropped and absenteeism has decreased.

There seems little doubt that the improvements are worth the cost. If those who are contemplating new lighting will consider the value of quantitative information and make records in figures of what is accomplished, they will perform a valuable service to the industry. Railroads, now more than ever before, are in competition for labor with other industries, and the value of good working conditions cannot be overlooked.

Effective Cost Control Must Come Down from Top

In the face of present high costs for labor and materials, there could be no more profitable effort spent by the engineering and maintenance officers of the railways than in a constant study of costs and how to reduce them. This is not to imply that no attention is being given to costs. Nevertheless, it is a fact, recognized and frequently expressed by those best

versed in accounting and cost study work, that many engineering and maintenance officers have neither the will to make adequate cost studies nor the tools with which to make them.

To raise this question here involves no "outside" criticism of the maintenance-of-way department. It merely gives voice to observations originating in some quarters within this department itself. In fact, some engineering and maintenance officers have been their own most severe critics.

Recently, for example, a chief maintenance-of-way officer, addressing a large group of roadway officers of division and subdivision rank, asked the following penetrating questions: "Have you, as a supervisor, division engineer, or roadmaster, ever kept cost figures on the performance of routine work? As a supervisor, have you studied the performance of your respective foremen and made comparisons as to the efficiency of one foreman with respect to another; the cost of maintaining one foreman's section against that of another? Have you, as a roadmaster or a division engineer, ever done likewise for your different supervisors?"

In most of these questions he confounded his audience because few of those hearing his words, with their lack of adequate cost and performance data and means of securing them, could possibly be in a position to have such information, except in a most general way. Turning the tables, those addressed could as readily stump many of their system officers with similar questions—and for the same reasons—lack of essential data, made available promptly, from which to derive the correct answers.

Thus, basically, the weakness in proper cost control throughout the maintenance-of-way department of most roads is essentially the same—lack of the necessary tools in the form of adequate comparative reports from which to observe conditions, make accurate comparisons, and be able to correct uneconomical methods, practices or organizations promptly. Possibly even more essential than additional reports are changes in the form of some reports now compiled; and the more prompt assembly, tabulating and dissemination of these reports to all concerned.

Commenting on this subject recently, one highly qualified student of cost analysis asserted that many engineering and maintenance officers are not sufficiently "cost conscious" to do the best job of scientific cost control—that the railroads are lagging behind in the use of cost studies as an efficient tool—and that it is surprising that railroad managements are not more vigorous about instilling in the minds of their supervisory officers the need for greater attention to costs.

If these observations are true, it would appear to be management's job to straighten things out—management's job because there is substantial disagreement between engineers and accountants on the question of what units and standards are most useful; because the establishment of an adequate cost-finding and cost-control system requires a highly trained organization of cost engineers and accountants; and because any system set up, no matter how good, would accomplish little unless the enthusiasm and whole-hearted cooperation of management is behind it. Most engineering and maintenance officers would welcome the leadership of management in the solution of this problem.

Can Do It Again

Freight loss and damage continues to be one of the railroads' most perplexing and expensive problems. Loss and damage is not only increasing in dollar amount but as well in relation to total freight revenue. Freight loss and damage incurred by 127 Class I roads exceeded \$56 million in the first half of 1947, an increase of almost 34 per cent over the corresponding period of 1946. Since freight revenue of these carriers increased only 28 per cent in the same period, the ratio of l. & d. to freight revenue increased from 1.60 the first half of 1946 to 1.66 the first half of 1947.

About 34 per cent of total loss and damage in the first half of the year involved less-carload freight, although l.c.l. produced less than 7.5 per cent of total freight revenues and 1.7 per cent of total tonnage during the first quarter of the year. In 1946 less-carload shipments accounted for more than 31 per cent of the total l. & d. dollars and in 1945 almost 30 per cent. It is evident that there lies in the field of handling merchandise freight the greatest single opportunity for the railroads to plug up the wide holes through which their revenues are being dissipated.

This is not to say, however, that equal attention should not be paid to opportunities for savings and better service through better packing and loading of carload freight, and the all-important matter of restricting coupling speed in switching operations within recognized safe limits.

The prospect for improvement in the loss and damage ratio is by no means hopeless. The labor market cannot forever remain as tight and poor as that now existing. New and improved machinery and methods of handling are appearing in increasing numbers on all sides. There has never been greater research on the subject of containers than is now being carried on by manufacturers and shippers. There is an abundance of mechanical devices and improvements for smoothing out the handling and transportation of freight.

But most hopeful of all is the historic fact that 25 years ago the railroads overcame the jinx of what then seemed a hopeless loss and damage problem. The last full year of government control—1919—brought the all-time high l. & d.-to-revenue ratio of 2.95. Despite individual roads' efforts, the ratio remained dangerously high during the next few years, being 2.78 in 1920, and 2.36 in 1921. Fully aroused against this terrific drain on their revenues and handicap to good customer relations, the railroads joined together in a single national effort under a new Committee on Prevention of Loss and Damage.

As a result of this outstanding combined effort by the then American Railway Association and its members, the loss ratio was cut almost in half in 1922 to 1.20 and steadily declined each year thereafter to a "normal" average of about 0.50. Only in 1945 did it climb again to abnormal heights, since which time it has increased each year. But even the high ratio of 1.66 for the first half of 1947 is but 56 per cent of the ratio suffered in 1919, a point from which the railroads—with the aid of the shippers and container manufacturers—fought their way to the "normal" of 0.50 in a few years' time. The conclusion must be that if they could do it before, they can do it again.



The coaches have an exterior of stainless-steel sheathing with a band of maroon across the window panels

The car names, like "Merry-meeting" for this restaurant-lounge car, were selected by New England grammar-school children



New Comfort for New England Passengers

The Boston & Maine and the Maine Central re-equip three trains in their Boston, Mass., to Bangor, Me., service with 24 passenger cars built by Pullman-Standard

THE "Pine Tree," "Kennebec" and "Flying Yankee" trains of the Boston & Maine and the Maine Central have been re-equipped with 24 new passenger cars built by the Pullman-Standard Car Manufacturing Company at its Worcester, Mass., plant. These Diesel-powered trains furnish fast service between Boston, Mass., and Portland, Me., and Bangor, operating on a two-hour schedule for the 114.7 miles from Boston to Portland and from 3 hrs. 10 min. to 3 hrs. 25 min. for the 135.4 or 138.9 miles from Portland to Bangor, depending on the route and the stops.

Three Types

The cars consist of 16 coaches, 4 coach-baggage and 4 restaurant-lounge cars. They were designed after a careful study of passenger equipment throughout the nation and of the passenger requirements for the particular service. One of the results of this survey is the installation of a separate glass-

enclosed smoking compartment in each car. This arrangement eliminates the necessity of a possible long walk to a smoking car and discourages promiscuous smoking in non-smoking cars, the latter being the cause of numerous complaints and a situation difficult to control successfully.

All cars are 85 ft. long over the coupler pulling faces and 10 ft. wide with roofs 13 ft. 6 in. above the rail. The dry weight of the coach is 122,400 lb., the coach-baggage, 123,400 lb. and the restaurant-lounge, 133,900 lb.

The car exteriors, including the roof, are covered with fluted stainless-steel moldings except for a band of maroon across the window panels. The diaphragms are of aluminum color. The diaphragm face plates, steps, step walls, all grab irons and door exteriors are stainless steel. Fluted skirts, cut away over the trucks, have hinged doors for access to equipment underneath.

The lower portion of the glass-enclosed smoking compartment is made of

aluminum-faced plywood painted on the inside and covered with colonial antique tan Redolite on the outside. Stainless-steel snap-on moldings are used at the joints.

The compartment in the coaches has two settees, each seating three passengers, and four individual chairs. In the coach-baggage cars the compartment has four settees, each seating two passengers. All chairs and settees are of tubular lightweight construction, upholstered with foam rubber and covered with a needlepoint red or blue fabric.

Coach-Baggage Interior

A blue color treatment is used in the passenger section of the four baggage-coach cars. The ceiling is a light blue, and the walls, frieze panels, light boxes on the luggage racks, pier panels, wainscoting, end bulkheads and entrance-door casings are a medium blue.

The floor covering under the seats is Hood $\frac{3}{8}$ -in. synthetic rubber flooring

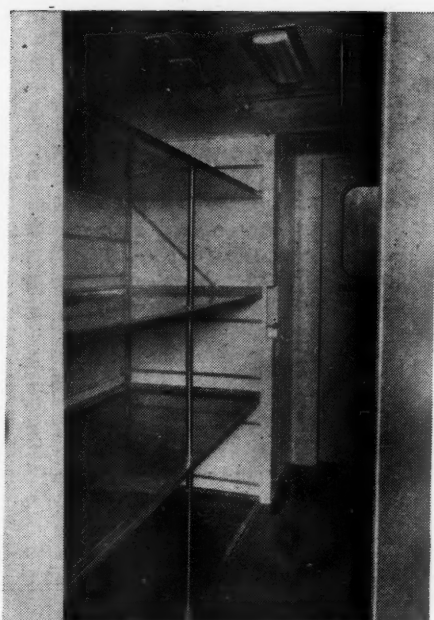
of blue Marbelle laid in 9-in. by 9-in. blocks. The aisle covering is of brown Marbelle with inserts of cream Marbelle. The brown Marbelle is also used in the passageways, smoking lounge, men's and women's rooms and on the luggage shelves. The seats in the main body of the car have needlepoint red covering. In the men's and women's rooms and the smoking lounge the ceiling color is light yellow and the walls are medium yellow. Draperies are a light gold color and seat coverings are blue.

Coach Color Schemes

Six of the coaches have a predominating yellow interior color, six have a green motif and four a blue color base. In the yellow motif the ceiling is light yellow and the walls, frieze, wainscoting, bulkheads and door castings are medium yellow. The seats are upholstered in blue and the draperies are blue Albion cloth. Floor coverings are the same blue and brown Marbelle as in the coach-baggage cars.

The ceiling color in both rest rooms and in the smoking lounge is light blue; the walls are medium blue. Draperies in these compartments are light gold. The vanity chair, the settee and the smoking-compartment chairs are upholstered in needlepoint red.

In the green cars light green is applied to the ceiling and medium green to the walls. Floor coverings under the seats are of green Marbelle and those in the aisle are brown Marbelle with cream inserts. The rest rooms and the smoking lounge in these cars have a color treatment the same as that used in the coach-baggage cars. The coaches in blue also have a color treatment sim-



Luggage shelves at one end of the coach carry baggage not suitable for the overhead racks

ilar to the coach-baggage cars. All cars in both the green and blue schemes have seats upholstered in needlepoint red.

The drapes in all cars are Goodall Albion cloth having a cedar color on the inside and aluminum color on the outside face. Blisterproof tan colored window capping of Formica and heater grills of stainless steel are used. All stainless-steel snap-on moldings and interior hardware have a satin finish.

Stainless-steel luggage racks of tubular construction over the seats and luggage shelves at one end of each coach hold the unchecked baggage. The shelves are covered with synthetic rubber flooring of the same shades as the

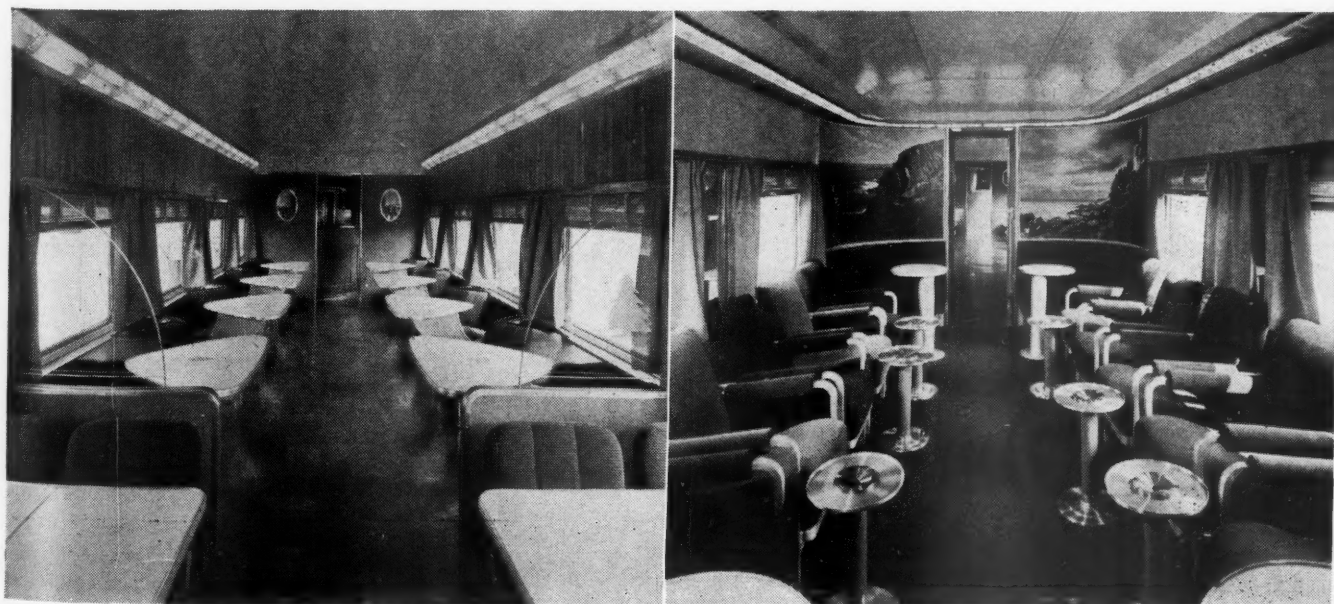
respective aisle floor covering and each shelf is equipped with stainless-steel retaining lips.

Broad double-glazed breather-type windows give a practically unlimited view of the attractive New England scenery through which these cars operate. The outside glass is of the special heat-absorbing type and the inner pane is safety glass. The windows have single large curtains of the cable-operated type. In addition to the curtain, the draperies at each may be drawn by one occupant partially across the window to prevent direct sun glare without robbing his seatmate of light or obstructing his view through the window.

The ladies' room is equipped with a large upholstered settee, a floor type ash receiver and an attractive gold-toned vanity mirror with special built-in soft fluorescent lights on both wings of the mirror for make-up purposes. A lightweight vanity chair and a Formica shelf are placed at the mirror. There are also two smaller mirrors fastened to the walls above the lavatory and a full-length mirror is fastened to the toilet door facing the powder room. A corner type wash lavatory is installed with the piping concealed by a stainless-steel skirt and the access opening to the liquid soap dispenser covered by a spring hinged stainless-steel door.

The men's room has a similar type lavatory and mirror. Comb and brush shelves of stainless steel are provided in both rooms. Cove moldings throughout the wash rooms, toilets and in the body of the cars at the junction of floor and walls facilitate cleaning.

The six coaches with the yellow interior have large beveled-edge gold-toned mirrors on each of the four end



Left—In the restaurant a wide aisle separates four triangular-shaped tables along the walls. The two alcoves in the foreground seat four each. Right—The lounge seats 18 passengers in 10 individual chairs and four curved seats in the corners

bulkheads. The green and blue cars have large green-tone and blue-tone murals on the bulkheads depicting typical New England scenes. Murals in the lounges and mirrors in the restaurants decorate the bulkheads in the restaurant-lounge cars.

The seats are the Sleepy-Hollow type located on 41¼-in. centers. Each seat can be independently reversed to suit a party of four. Electric water coolers are located in a special alcove, free from aisle traffic, adjacent to the glass-enclosed smoking lounge. Stainless-steel tanks hold 300 gal. of drinking water and wash water for each car.

Restaurant-Lounge Cars

The general construction of the res-

taurant-lounge cars is identical with that of the coaches insofar as the trucks, underframe, shell and roof are concerned. A 19-ft. lounge section at the vestibule end of the car has a seating capacity of 18 in. 10 lightweight tubular chairs facing across the car and four curved seats of two passengers each in the rounded corners. The corner seats have round pedestal-type cocktail tables with linen-finish Formica tops. The lounge chairs are upholstered in foam rubber with rich red and blue coverings in alternate seats. Interior painting follows the yellow motif used in six of the coaches.

A five-foot bar in the middle of the car is equipped with the necessary liquor storage locker, working area, and bar entirely of stainless steel. The

stainless-steel glass cabinet at the back of the bar is attractively high-lighted by indirect overhead fluorescent lighting so placed that the glassware sparkles and shines. The floor is covered by a deep blue carpet.

Across from the bar is a Servel gas refrigerator for beverages. This is faced with stainless steel to match the bar. The face of the bar has a Formica panel bordered with stainless-steel molding.

The restaurant section has two four-seat tables adjacent to the bar in sections divided from the main dining section by low partitions capped with ornate carved glass in which are etched the Pine Tree or Minute Man outlines. The four-seat tables and chairs are of tubular construction, the chairs being upholstered in foam rubber and covered with blue fabric; all table tops are of linen-finish Formica.

The main portion of the restaurant section comprises four two-seat triangular-shaped tables on each side of the car facing each other. This arrangement permits each passenger to face diagonally across the car or to watch the scenery from the adjacent window by simply turning his head slightly. It also allows each diner to enter or leave his seat without disturbing his table partner. The wide aisle facilitates quick and efficient waiter service without congestion.

The diagonal seats and seat backs are upholstered with super-needlepoint red fabric. The base of the seats forms a continuous curving contour of stainless steel with the cove molding at the floor joint. The floor covering in the restaurant and steward's sections is synthetic rubber in a blue Marbelle color.

The pantry equipment consists of a coffee urn, cream dispenser, electric low counter-type refrigerator, automatic gas toaster, and cabinets, all of gleaming stainless steel. All of this equipment is within arm's reach which eliminates extra steps and accelerates service. The front of the pantry is attractively faced with Formica panels and the serving counter is stainless steel with a roll-down aluminum door which closes the pantry opening when not serving. A hinged serving counter separates the pantry from the kitchen.

Kitchen Features

The kitchen is 11 ft. long, exclusive of the refrigerator alcove, and is constructed entirely of stainless steel. Modern devices, such as an automatic dish washer, glass washer, electric garbage Disposall, Frialator, etc., are employed. The steam table, Frialator, and gas range (where all cooking is handled) are on the outer wall side of the kitchen. On the inside wall, the soiled dishes are

Partial List of Materials and Equipment on Boston & Maine-Maine Central Passenger Cars Built by the Pullman-Standard Car Manufacturing Company

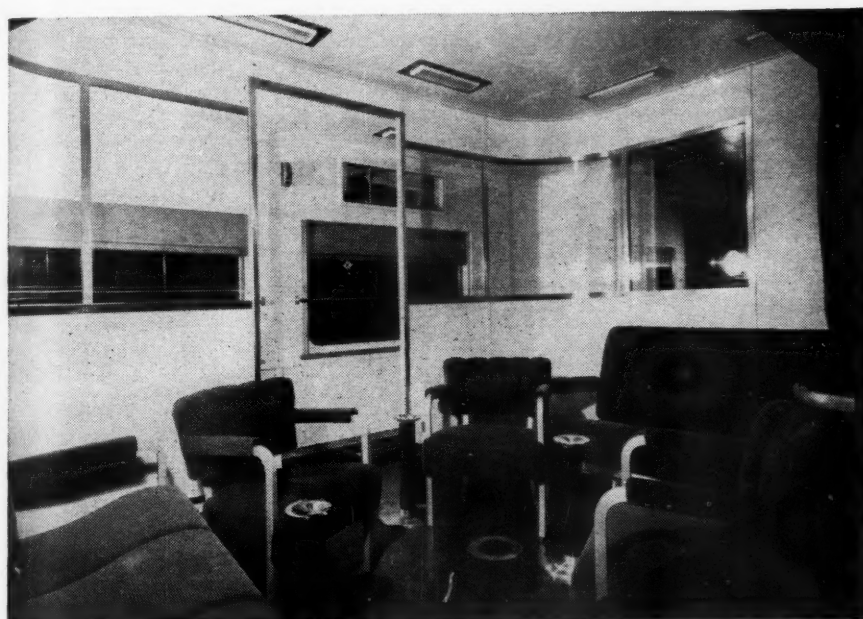
Truck frames	General Steel Castings Corp., Eddystone, Pa.
Springs	Fort Pitt Spring Div., H. K. Porter Co., Pittsburgh, Pa.
Side bearings, bolster locking pin	W. H. Miner, Inc., Chicago
Axles	Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Wheels	Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Draft gear	Waugh Equipment Co., New York
Coupler, tightlock	National Malleable & Steel Castings Co., Cleveland, Ohio
Buffing gear	Waugh Equipment Co., New York
Diaphragms	Morton Mfg. Co., Chicago
Floor plates, vestibule	Alan Wood Steel Co., Conshohocken, Pa.
Doors, side and end	Pullman-Standard Car Mfg. Co., Chicago
Bearings, roller	Fafnir Bearing Co., New Britain, Conn.
Insulation, Stonefelt	Johns-Manville Sales Corp., New York
Sound deadening material:	
Insulmat	I. W. Mortell Co., Kankakee, Ill.
Fabreeka	Fabreeka Products Co., Boston, Mass.
Air brakes:	
(Boston & Maine)	New York Air Brake Co., New York
(Maine Central)	Westinghouse Air Brake Co., Wilmerding, Pa.
Decelostats	Westinghouse Air Brake Co., Wilmerding, Pa.
Clasp brakes	American Steel Foundries, Chicago
Brake shoes	American Brake Shoe Co., New York
Hand brakes, Peacock	National Brake Co., Chicago
Flooring composition	Tuco Products Corp., New York
Floor covering, rubber	Hood Rubber Co. Div., B. F. Goodrich Co., Watertown, Mass.
Formica	Formica Insulation Co., Cincinnati, Ohio
Seats	Heywood-Wakefield Co., Gardner, Mass.
Settees and chairs	General Fireproofing Company, Youngstown, Ohio
Baggage racks	Luminator, Inc., Chicago
Windows	Adams & Westlake Co., Elkhart, Ind.
Window curtains, cable-type	Adams & Westlake Co., Elkhart, Ind.
Window drapes	Goodall Fabrics, Inc., New York
Drapery fixtures	Kirsch Co., Sturgis, Mich.
Venetian blinds, Da-Lite	Ajax-Consolidated Company, Chicago
Carpet	Beck-Blatchford Co., Chicago
Photo murals	Kaufmann & Fabry Co., Chicago
Smoking stands	Harmo Dist. Co., New York
Vanity gold-tone mirrors	Luminator, Inc., Chicago
Glass partition, smoking compartments	Libby-Owens-Ford Glass Co., Toledo, Ohio
Partition, Plymetl	Haskelite Mfg. Corp., Chicago
Lavatories	Crane Co., Chicago
Hoppers	Dayton Manufacturing Co., Dayton, Ohio
Paper cup dispensers	Logan Drinking Cup Div., U. S. Envelope Co., Worcester, Mass.
Door closers	Russell & Erwin Mfg. Co., New Britain, Conn.
Locks, end door	Dayton Manufacturing Co., Dayton, Ohio
Locks, kitchen equipment	Best Universal Lock Co., Indianapolis, Ind.
Door hangers, baggage compartment	Midland Company, South Milwaukee, Wis.
Paint, interior	Sherwin-Williams Co., Cleveland, Ohio
Paint, exterior and underframe	Glidden Co., Cleveland, Ohio
Kitchen equipment	E. I. du Pont de Nemours & Co., Wilmington, Del.
Bar equipment	John McDonald Company, Boston, Mass.
Water tanks	John Van Range Company, Cincinnati, Ohio
Water cooler, electric	John Van Range Company, Cincinnati, Ohio
Water cooler, kitchen	Scaife Co., Oakmont, Pa.
Refrigerator, electric	General Electric Company, Schenectady, N. Y.
Refrigerator, propane gas and equipment (Servel)	Bay State York Co., Boston, Mass.
Air conditioning equipment	Bay State York Co., Boston, Mass.
Air conditioning controls	Utilities Distributors, Inc., Portland, Me.
Multivent ceiling	Frigidaire Div., General Motors Corp., Dayton, Ohio
Air conditioning filters	Vapor Car Heating Co., Inc., Chicago
Odor absorbers	Pyle-National Company, Chicago
Connectors, steam heat	Farr Company, Los Angeles, Calif.
Heating equipment	W. B. Conner Engineering Corp., New York
Generators	Barco Manufacturing Co., Chicago
Generator drive	Vapor Car Heating Co., Inc., Chicago
Motor alternators	General Electric Company, Schenectady, N. Y.
Batteries	Spicer Mfg. Corp., Toledo, Ohio
Lighting fixtures	Safety Car Heating & Lighting Co., New York
Circuit breakers	Thomas A. Edison, Inc., West Orange, N. J.
Charging receptacles	Luminator, Inc., Chicago
Standby receptacles	Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.
Exhaust fans	Albert & J. M. Anderson Mfg. Co., Boston, Mass.
	Albert & J. M. Anderson Mfg. Co., Boston, Mass.
	Diehl Mfg. Co., Somerville, N. J.

delivered by the waiters through an air-operated slide to a conveyor which places them adjacent to the glass and dish washer. They are then placed on racks and set into the washing machine. With the push of a button, the machine automatically washes (at 140 deg. F.) and rinses (at 190 deg. F.) three times. The dishes are then removed and stacked in Lowerators which automatically deliver each dish or plate at the top of the stack. As one is removed, the next is automatically raised to the top. The Disposall, sinks, and a hinged fold-away type wash lavatory are also along the inside wall. The upper area is occupied with cabinets on both sides.

All cooking fumes over the gas range and Frialator are drawn upwards through ducts in which grease filters are placed and then exhausted to the



Murals depicting New England scenes decorate the end bulkheads in the coaches with blue and green motifs; gold-toned mirrors are used in the "yellow" coaches



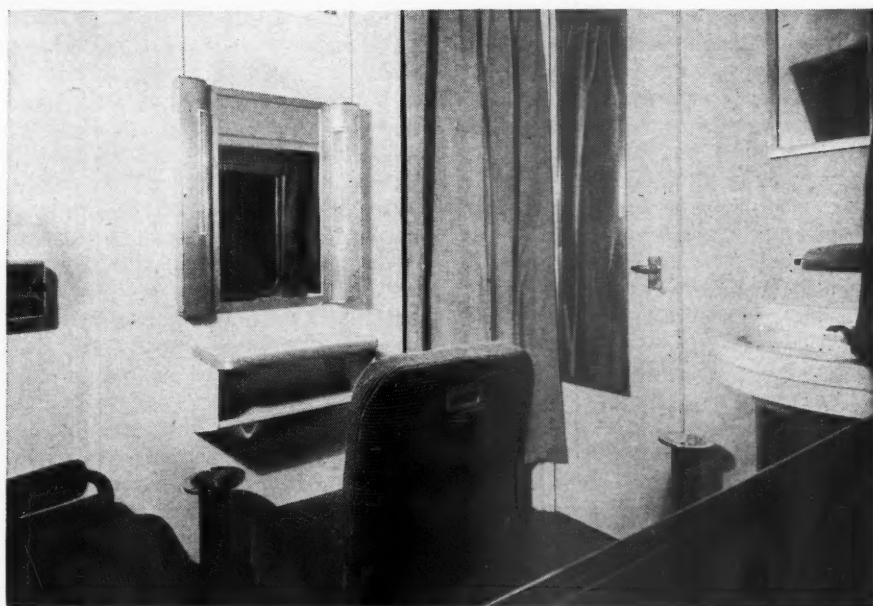
A glass-enclosed smoking compartment in each coach and coach-baggage car eliminates annoyances to non-smokers

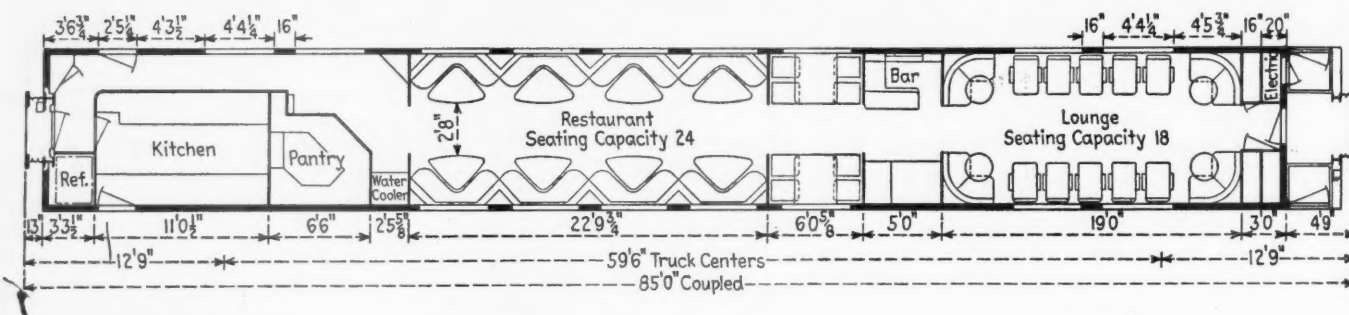
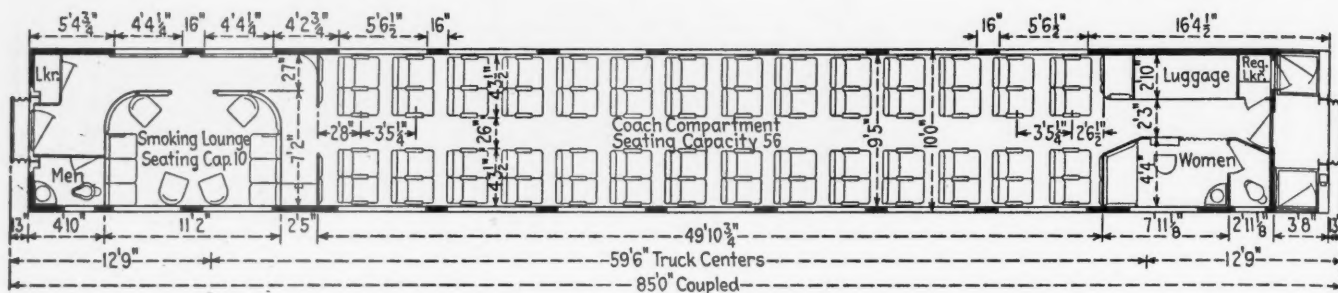
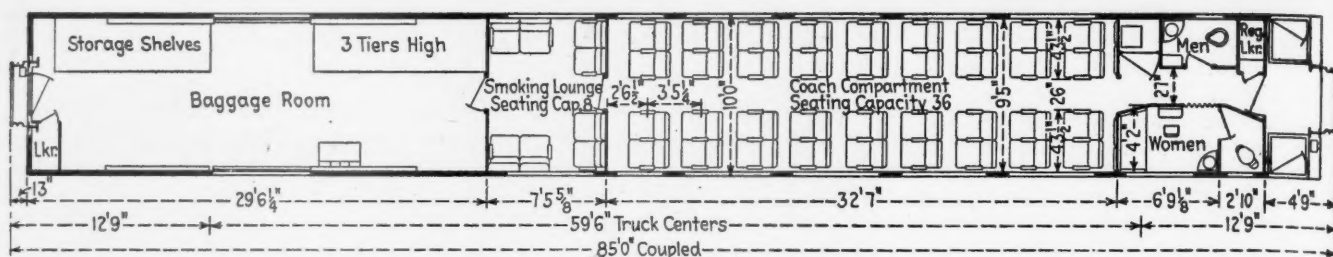
A lounge seat and a vanity with built-in fluorescent lights feature the ladies' rest room

atmosphere. In addition, 500 c.f.m. of fresh air is delivered at the pantry ceiling, the fresh-air inlet fan and the 500 c.f.m. exhaust fan in the kitchen being synchronized to cut in simultaneously. An additional 200 c.f.m. is exhausted through the kitchen ceiling. This fan is synchronized with the air-conditioning circuit.

Full-height service doors are located at the kitchen and corridor sides of the car so that the loading can be handled from either side. The end service door to the kitchen is of hollow construction with a broom closet utilizing the hollow space.

An 8-cu.-ft. Servel gas refrigerator is installed at the extreme end of the kitchen to take care of meats, eggs, milk etc. The lower portion of the refrigerator is utilized for vegetable storage. It is of special interest to note that two of the three refrigerators, the toaster





Floor plans of the cars. From top to bottom are the coach-baggage, coach, and restaurant-lounge arrangements.

and the cooking use propane gas. This disposes of the old style coal range for cooking and relieves the increased electric load that would be created if electric refrigerators were used. Three 100-lb. gas tanks under the car are piped to the kitchen. As one tank is emptied the next one automatically cuts in through a system of pressure regulators.

An ingenious arrangement of apparatus involving a water-circulating pump, air pressure and electrical controls produces continuous hot water at 140 deg. F. for washing all soiled dishes in the kitchen and 190-deg. water for rinsing. This feature is a recent development used for the first time on the Boston & Maine-Maine Central cars and helps in the sanitary handling of dishes and glassware.

Air Conditioning

The Frigidaire modulated system of air conditioning is used in which the cooling is of the split-evaporator type which varies between full and half operation. This avoids off cycles and the tendency toward excessive humidity

during such intervals. The refrigerating compressors are of 7-ton capacity and are operated by 15-hp. motors from the unregulated 60-volt d.c. power supply. The air is forced through multi-vent ceiling ducts by blower fans of 2,400 c.f.m. capacity. In the coaches, two exhaust fans of 300 c.f.m. each and in the coach-baggage cars four exhaust fans of 150 c.f.m. each insure a fresh air intake of 25 per cent. All recirculated air is purified by means of Dorex activated-carbon filters. Both heating and cooling are controlled by a master thermostat inside and a 50-deg. thermostat outside so as to maintain a standard differential, inside to outside. The heating is further controlled by thermostats and on-off switches on both sides of the car. Heating is by the Vapor zone-heating control system with copper-fin radiation.

Additional exhaust and intake fans operating on 110-volt a.c. power are installed, one each, in the pantry and kitchen to promote circulation when the air conditioning is not on and the kitchen crew is working. A unique arrangement of air ducts concentrates

recirculated air from both the restaurant and lounge sections at the bar where the air conditioning evaporator is located. Air is distributed both ways from the center of the car.

Lighting

All cars are lighted through Lumina-tor glass, dust-proof fluorescent light fixtures. The passenger compartments are illuminated by thirty-two 15-watt bulbs arranged as a continuous center ceiling light extending for 50 lineal feet. They are arranged in eight sections of four tubes each behind magnifying-glass lenses. These lamps are supplemented by twenty-eight 15-watt tubes in the baggage racks over the seats with individual flip-on switches. The total illumination at the reading plane is approximately 15 foot candles.

In the smoking compartments of the coaches eight 15-watt tubes are located in the ceiling directly above the seats. Additional 15-watt tubes include four in the powder rooms, one in the ladies' saloon, one in the men's saloon, and five as center ceiling lights in the aisles. In

addition to fluorescent lighting, each coach is equipped with five 15-watt incandescent lamps as emergency lights in the fluorescent fixtures, one in each of the two saloon lights and one in each of the three passageway lights. Incandescent light are also located in the vestibule, luggage shelves, electrical lockers, blind end and evaporator compartment.

The restaurant-lounge cars have continuous corner lighting at the headlining utilizing the same type of glass fixtures and tubes as in the other cars. Thirty 15-watt bulbs produce continuous lighting in the lounge section and 36 15-watt tubes are used in the restaurant section. Additional 15-watt tubes include two overhead and three in the glass-display cabinet in the bar section and five overhead in the aisles. Three of the aisle lighting fixtures include 15-watt incandescent emergency lamps. Other 15-watt lamps are located at the soffit over the serving counter, two at the serving bar, and two under the serving counter. There are also four 25-watt lamps in the kitchen ceiling, 16 in the kitchen over the working areas and one in the coffee-urn compartment. The use of incandescent lamps in the kitchen permits the crew to work without running the motor-alternator.

Each restaurant-lounge car is equipped with ultraviolet lamps in the water cooler and one in each refrigerator, another innovation in bacteria treatment for railroad equipment.

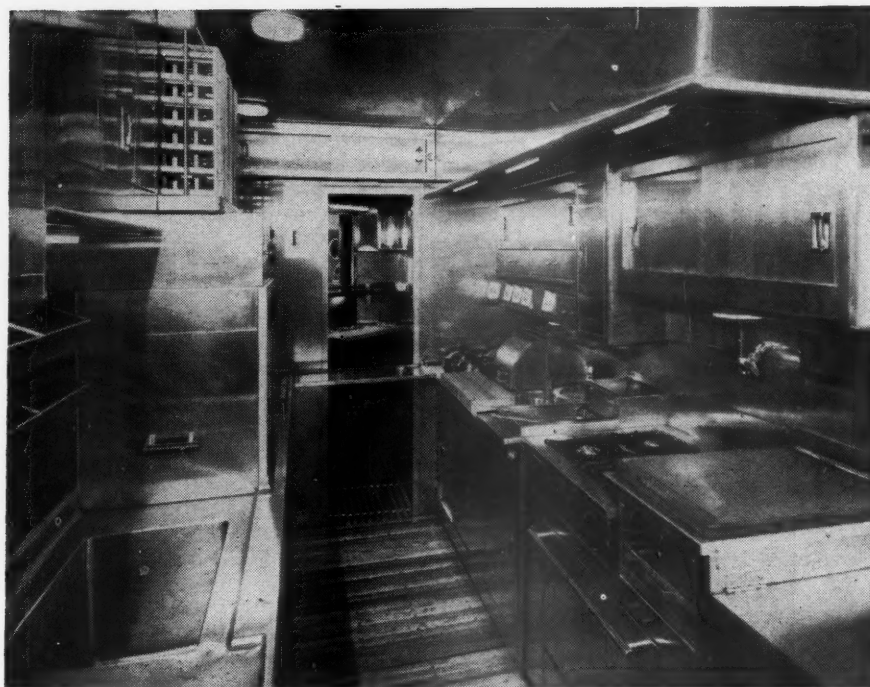
Electrical Equipment

All incandescent lights are supplied with regulated 60-volt d.c. power. The water cooler motors operate on unregulated d.c. power. The fluorescent lighting systems operate on 110-volt a.c. power supplied by 2-kw. motor alternators. The restaurant-lounge cars have two of the 2-kw. alternators to supply current for lights and kitchen apparatus. Each restaurant-lounge car also has a 25-hp. 220-volt a.c. motor which provides standby operation of the 35-kw. generator. The other cars are equipped with 20-kw. axle generators operating through Spicer drives with automatic clutches designed for a cut-in speed of 22 m.p.h.

Power during non-operating periods is supplied by 50 cell, A-16-H, 680-amp.-hr. batteries in the coaches and 50 cell, A-20-H, 850-amp.-hr. batteries in the restaurant lounge cars.

Structural Details

The underframes and body frames are built of low-alloy high-strength steel. The center sill consists of two A.A.R. Z-sections with the top flanges welded continuously. Behind each bolster the



An automatic dish washer, glass washer, dish conveyor and an electric garbage disposer are some of the modern devices in the stainless-steel kitchen

center sills are spliced to a separately constructed built-in draft sill of welded construction. The inside side sills are a continuous L-section to which all cross members are welded and the side posts are riveted.

The bolsters have a built-up arc-welded box section with two web plates and top and bottom cover plates. The crossbearers are pressed channels welded to longitudinal members. The floor crosssties are 3-in. Z-bars located between crossbearers and welded to the longitudinal members. End sills are of built-up welded construction.

The floors of galvanized steel are the arched type with corrugations $\frac{1}{2}$ -in. deep crosswise of the car and screwed to the underframe members. The floor is of Tucolith composition $\frac{3}{8}$ -in. thick above the top of corrugations of the subfloor.

The body frames are of welded girder-type construction with plain high-strength-steel side sheathing. The girder below the windows, the letterboard above the windows and the skirts are covered with corrugated stainless-steel moldings, screwed on over the sheathing.

Four-Wheel Trucks

The four-wheel trucks have $5\frac{1}{2}$ -in. by 10-in. journals fitted with Fafnir roller bearings lubricated by grease instead of oil. The 36-in. rolled-steel wheels were ground after mounting to insure concentric treads. The trucks are built with General Steel Castings' alloy-cast-steel frames on which the

pedestals are cast integral. Pedestal openings are $13\frac{3}{8}$ -in. by 8-in. The equalizer springs are helical, and the bolster springs are full elliptic and helical. The damping action of the elliptic springs is employed instead of shock absorbers.

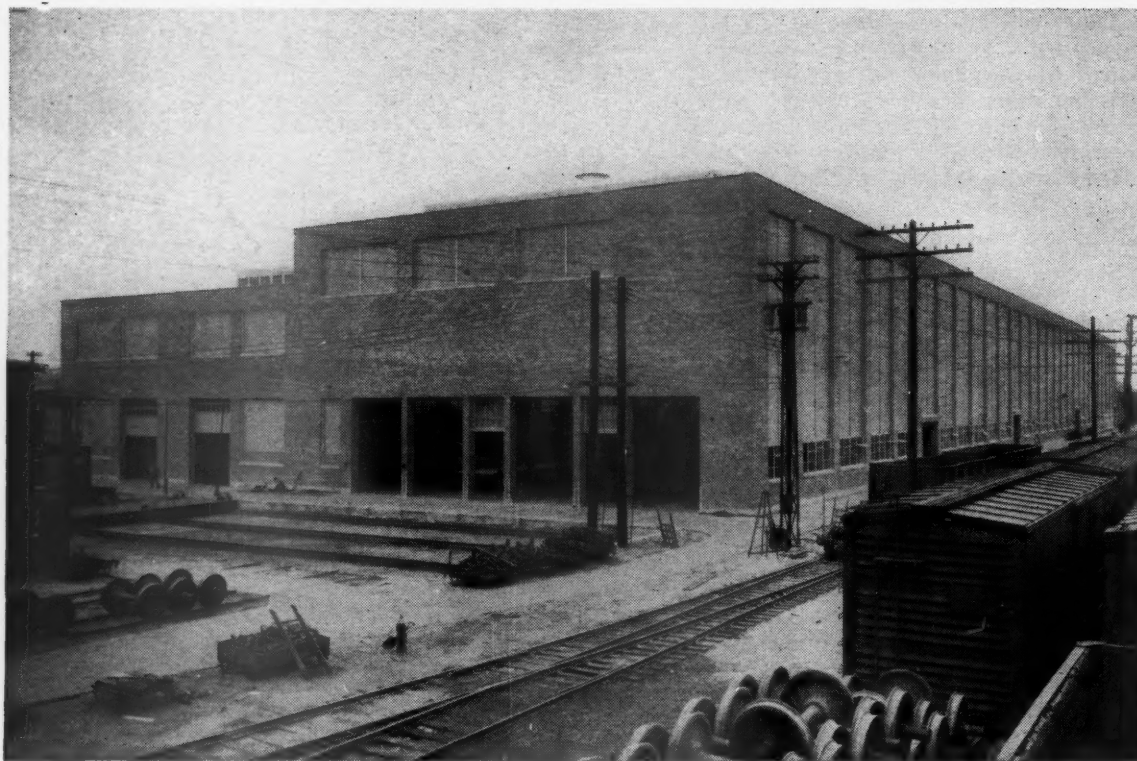
Every journal box on one side of each car is also equipped with Decelostats to prevent the wheels sliding during brake application. Each roller-bearing box is equipped with the smoke-and-stench-bomb hot-journal warning.

Waugh twin-cushion draft gear and National tightlock couplers are applied.

Insulation

The floors, walls and doors, framing members and roof are insulated with 3-in. Stonefelt. In addition, all sheets have a $\frac{3}{8}$ -in. coating of sound-deadening and corrosion-resistant Insulmat. Tape is used to break the metal-to-metal contact between the framing members and the inside finish. Fabreeka sound-deadening mats are used to isolate noises from the car body at the following locations: center plates, truck springs, bolster ends, buffer stems, body side bearings, and on top of journal boxes.

Westinghouse and New York Air Brake D-22-P schedule (less electro-pneumatic feature), with Westinghouse Decelostats on one journal of each axle, are used. A one-lever-type hand brake is applied to the vestibule end of each car plus an additional hand brake at the blind end of the restaurant-lounge cars.



General west-end view of the new erecting and fabricating shop

Northern Pacific Has Assembly-Line Car Shop at Brainerd

New facilities, which provide for both the construction and repair of freight equipment, are now engaged in a 1,000-car construction program, under the progressive spot system

ON October 28, the Northern Pacific celebrated the completion of the first of 1,000 new steel-sheathed box cars to be built at its new freight car shop at Brainerd, Minn., to Association of American Railroads standards. Since its completion late in 1946, the shop, which is designed for the construction of new equipment as well as the repair of existing cars, had been engaged solely in repair operations, awaiting sufficient steel to start the road's new car construction program.

The new shop, which was built at a cost of approximately \$1,800,000, enlarges former car repair facilities at Brainerd, and is modern throughout, with many new shop tools and units of equipment, some of special design, to permit all necessary fabricating operations. It is designed for a production schedule calling for the completion of as many as 15 new standard steel-

sheathed box cars a day, or the simultaneous construction of 10 such new cars and the program repair of 5 to 10 cars a day—with all of the work done under the progressive spot system.

As a whole, the new shop incorporates two former shop buildings—a car shop and a steel car shop—and a large intervening area, and includes also large covered and uncovered material storage areas.

Located at the crossing of the Northern Pacific's line from Duluth, Minn., to Staples, Wis., and that from Little Falls, Minn., to International Falls, Brainerd has long been an important point on that system for the repair of all types of rolling stock, as well as the site of the road's main storehouse. With its new car shop facilities, it assumes still greater importance.

Physically, the new shop facilities, including its related storage areas,

occupy an area approximately 375 ft. wide by 895 ft. long—the latter dimension lying in a west to east direction—immediately east of a transfer table which existed in the old layout. This area was formerly occupied by the earlier car shop, 103 ft. by 126 ft., in its northwest corner, and the old steel car shop, 80 ft. by 236 ft., in its southeast corner, as well as by numerous intervening car repair facilities, including several small buildings, tracks, material storage areas, and both overhead and underground utilities.

In the new layout, a main shop unit was built on the south side of the area, 578 ft. long by 180 ft. wide, joining the southerly end of the old car shop and the westerly end of the old steel car shop, to form a building with 152,200 sq. ft. of floor area. This new main unit contains two sections, known as the erecting shop, which lies along

the south 100 ft. of its length, and the fabricating shop, which occupies the north 80 ft. throughout its length.

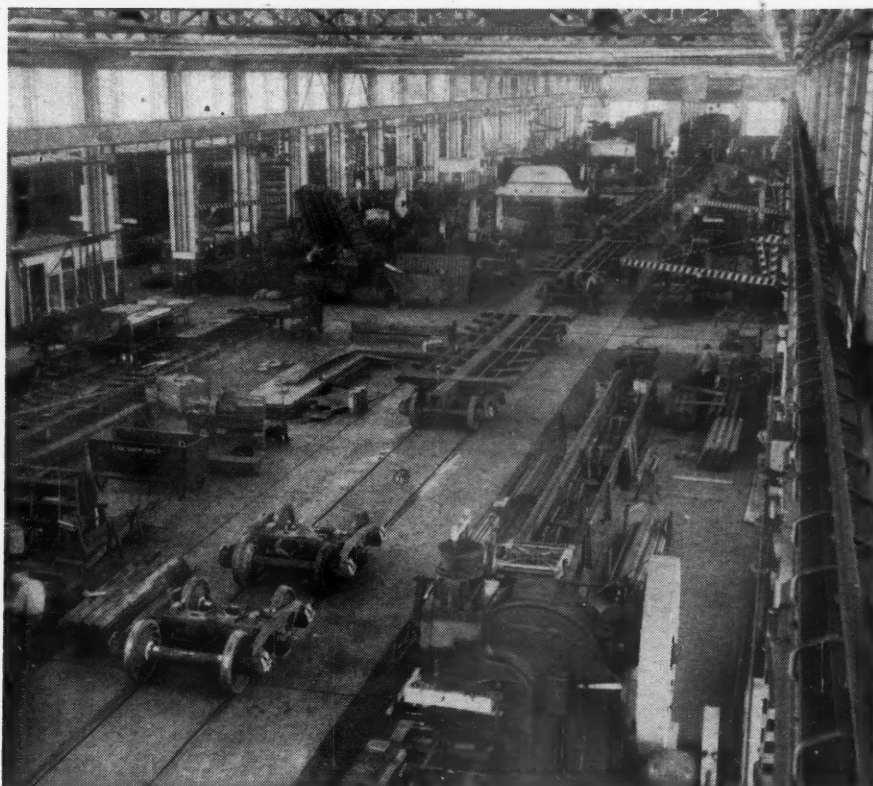
Immediately north of the existing shop, and forming a continuation of the east end of the fabricating shop, is a covered storage area, 80 ft. by 280 ft. Along the north side of the fabricating shop, with openings directly into it, are a series of three low lean-to buildings, which extend throughout its length from the east wall of the old car shop. These auxiliary building units house two shower and toilet rooms, a locker room, a lunchroom, a mechanical equipment room, and a general office—the different building units being separated by vestibule openings connecting the fabricating shop proper with a 25½-ft. wide concrete driveway continuously along the north side of the lean-to unit. Flanking this driveway to the north are the principal storage units at the shop, which include from west to east, in the order named, a 100-ft. by 196-ft. covered storage shed, a 278-ft. by 100-ft. storage warehouse, and an open, low-level storage platform, 175 ft. by 280 ft., served throughout its length by a depressed track. The storage warehouse, which is 22 ft. high, houses an office section, a four-stall garage, and a 60-ft. by 72-ft. storage rack section—all of which areas are heated.

Construction Details

The erecting shop, forming the south 100 ft. of the new main shop proper, is 578 ft. long, and has an average ceiling height of 50 ft. The fabricating shop, on the other hand, which occupies the more northerly 80 ft. of the new shop area, and which is separated from the erecting shop only by a line of columns, is 618 ft. long and has an average ceiling height of 40 ft.

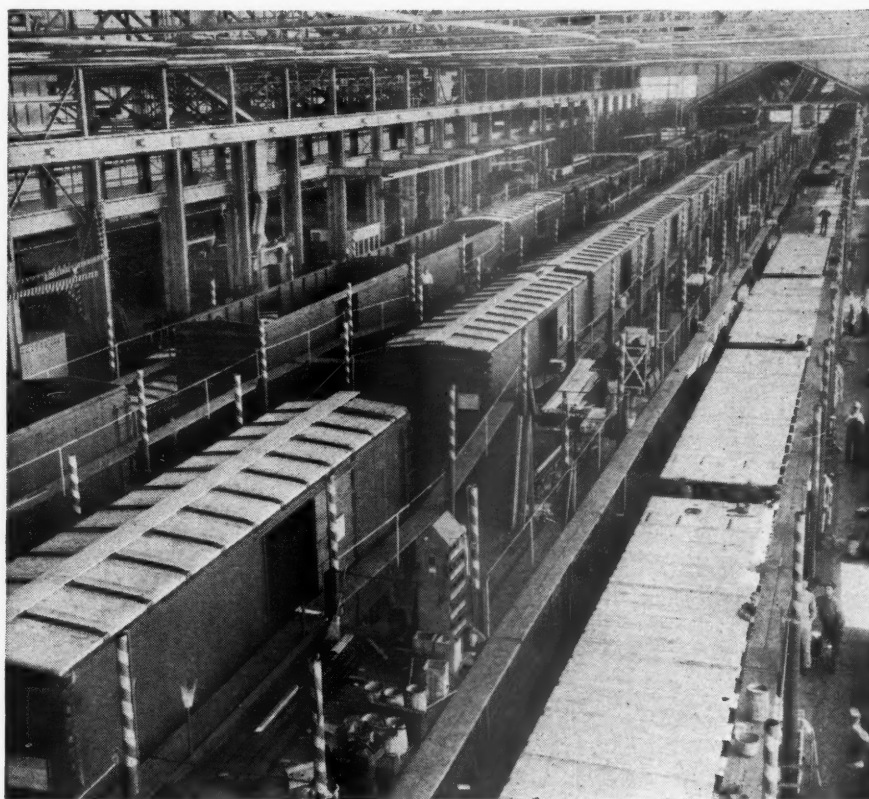
The new shop building as a whole is constructed on a concrete foundation supported on treated timber piles, and has a structural steel frame enclosed for the most part with brick and glass block walls. The north and south walls of the building proper each incorporate solid panels of glass block between brick pilasters, except for areas of clear glass in steel sash at their lower level, with ventilating sections.

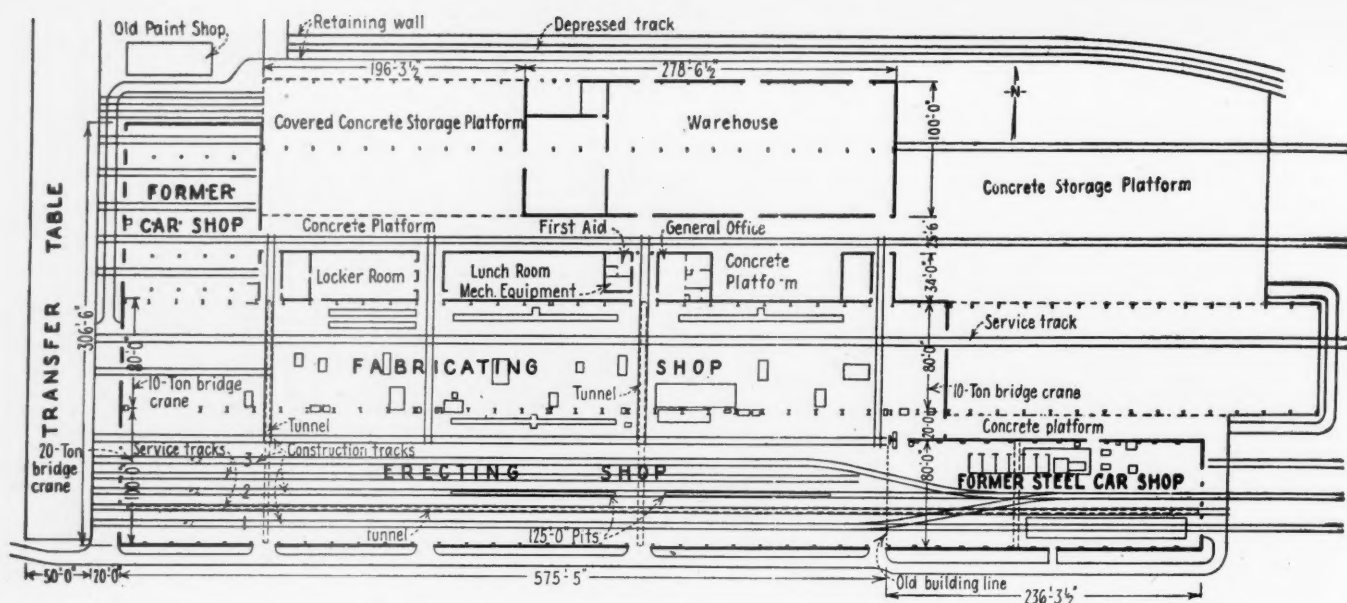
The west end wall, fronting on the transfer table, contains eight track door openings, each with a clearance of 18 ft. above floor elevation and each equipped with a vertical-lift type power-operated door. The wall between the 40-ft. ceiling of the fabricating shop and the 50-ft. ceiling of the erecting shop is constructed of corrugated Transite sheathing on wood studding, with 1-in. rigid insulation and ¾-in. plasterboard interior finish.



Looking west through the fabricating shop where, during the present 1,000 new-car construction program, prefabricated underframes are mounted on trucks. Subsequent plans call for the progressive fabrication of underframes in this shop

Looking east through the erecting shop, showing body work under way. Track at the right is filled with flat cars being repaired





General layout plan of the new car shop facilities

The east end wall of the erecting shop, above its connection with the old steel car shop roof, is similar in design to the latter wall, except that it is provided with steel sash for daylighting purposes and is hung from the end roof truss. That section of the east wall between the fabricating shop and the covered storage area east of this shop is of reinforced brick construction and contains a structural steel, top-hinged door, 78 ft. wide and 10 ft. high,

for the passage of a traveling bridge crane which moves throughout the length of the fabricating shop and the covered storage area. This door has a projection, 8 ft. by 4 ft., below the door proper for the passage of the crane cab.

Beneath this overhead door is a standard sliding door for the passage of cars and crane loads between the fabricating shop and the storage area. Both of these doors are electrically operated,

and their controls are synchronized with each other.

The roof is constructed of wood purlins, with wood decking covered with a tarred felt and gravel roofing. Spaced at intervals, transverse of the structure, are nine structural steel monitors, 11 ft. high, with walls of corrugated Transite sheathing fitted with almost continuous panels of steel sash windows for additional light. The sashes on the west side of these monitors are glazed with tinted, heat-absorbing glass. Throughout the interior of the building, walls and exposed steel are painted with aluminum paint, above a dark dado to window-sill height.

Erecting Shop

The floor area of the new erecting shop is occupied by four construction tracks and two service tracks, which extend its full length. It is paved throughout with concrete, flush with the tops of track rails. The first, third, fifth and sixth tracks from south to north are construction tracks (although some of them are used at times for repair work), while the other two intermediate tracks are service tracks. These six tracks enter the shop directly from the transfer table pit at the west end, and at the east end the first, third and fifth tracks are connected by a crossover and switches into the third track, which continues east through the steel car shop. The first track also continues through that shop. The second and fourth tracks (service tracks) terminate at the east end of the steel car shop and erecting shop, respectively. The third (construction) track is equipped with two 125-ft. pits, while the second (service) track is over a 4-ft. by 4-ft.



Placing one of the car sides in position near the west end of the fabricating shop

utilities tunnel, which runs throughout the entire length of the erecting and steel car shops, with two lateral tunnels extending into and across the fabricating shop.

Spaced along both sides of each construction track, at about 20-ft. intervals along utility pipe trenches connecting the utilities tunnels, are a series of service stations, each with outlet connections for compressed air, oxygen, acetylene, electric welding circuit, high-frequency current for the operation of power tools, and for safety lights. In all there are 132 such stations in the erecting and steel car shops. In addition, permanent steel posts spaced along both sides of the construction tracks afford support for adjustable scaffolding at any level in order to provide convenient access to the sides and tops of cars while under construction or repair. For handling materials and car parts in the erecting operations, the entire length of the shop is served by a Northern 20-ton bridge crane of 98-ft. span.

Another end goes into place with the aid of an overhead crane in the fabricating shop



Fabricating Shop

The fabricating shop, occupying the north 80 ft. of the new structure, has, in part, concrete flooring, with wood blocks on concrete in those areas occupied by the various machines. A single service track extends through the entire length of this shop and east over the full length of the covered storage platform at the east end of the shop. In addition, four transverse service tracks are provided within the shop, connecting the most northerly construction track in the erecting shop with a driveway and a track along the north side

of the fabricating shop, and giving ready access to the storage buildings immediately to the north. The two transverse utilities tunnels from the erecting shop extend through this area and afford the same utilities as in the erecting shop, outlets being located at alternate column locations on both sides, numbering 35 stations in all.

For handling materials and parts within the fabricating shop, it is served throughout its length by a service track and by a Northern 10-ton bridge crane

of 78-ft. span—the runways of the crane extending out through the east end for the full length of the covered storage area at that end.

Thus, materials in the storage area can be handled directly to the required locations in the shop either by car or by the crane.

For carrying out the fabricating operations required, the fabricating shop has been equipped with a large amount of new equipment and tools, among which are the following:



Exterior of the new shop, showing the covered storage platform at the east end, just before completion

- 1 Annealing furnace
- 1 Mahr plate furnace
- 1 Beatty 400-ton hydraulic bulldozer
- 1 Air Reduction Travograph
- 1 Cincinnati plate shear, $\frac{3}{4}$ in. by 12 ft.
- 2 Beatty spacing tables
- 2 Beatty 11-B heavy-duty punches
- 1 Beatty No. 30 gate shear
- 1 Beatty No. 7 combination punch and shear
- 1 Beatty No. 29 multiple punch
- 1 Hillis & Jones punch and shear
- 1 Hanna deep gap riveter
- 1 McCabe flanger
- 1 Cincinnati punch and shear
- 1 Williams & White horizontal punch
- 1 Cincinnati No. 210 press brake
- 1 Linde Air Products union melt welder
- 1 Beatty No. 1 horizontal punch assembly
- 1 American 4-ft. radial drill press
- 1 Shepard & Niles electric hoist—5 ton

To supply the necessary additional power required for the operation of these machines, and for welding purposes, a new General Electric 1,500-kw. generator, and a new Worthington 4,000-cu. ft. air compressor, with cooling tower, were added to the shop power plant. Also, an additional acetylene generator was provided in a separate building.

Lighting throughout the new shop is by means of incandescent angle reflector fixtures suspended from the trusses and along the wall. This type lighting is extended to the many driveways outside the building and the storage areas, thus permitting all-weather day and night operation. In all, approximately 485,000 watts of illumination are provided. The general heating of the shop is by means of thermostatically-controlled unit heaters, which can supply as much as 20,000,000 B. t. u. per hour.

Ventilation is provided by gravity-type revolving ventilators, one of which is mounted on each monitor. In the erecting shop the ventilators are 54 in., with 7,831 cu. ft. per min. capacity, and in the fabricating shop they are 48 in., with 6,466 cu. ft. per min. rated capacity. In addition, furnace hoods and welding booths are vented directly through the roof. Each ventilator has installed in its roof opening a multi-blade ball-bearing damper operated by an air motor. These motors are connected by a pneumatic system of temperature regulation and damper control equipment. Room temperature is to be maintained within a range of 4 deg.

Progressive Operation

In the present 1,000 new-car program, the car underframes are being received completely fabricated and require only mounting on trucks in the fabricating shop, as is shown in the photograph. The mounted frames are moved westward through the shop and, near the west end, as space is available, the sides and ends of the cars are set in place. Directly at the west end, the partially completed cars are moved, via the transfer table, to construction track No. 3 in the erecting shop. From this point they are moved progressively

eastward through the shop, by means of car pullers, from working spot to working spot, during which movement all of the major body steel work is done.

When the cars arrive at the east end of the shop they are switched back on construction tracks Nos. 1 and 2, where wood work of all kinds is done, to reach the point of completion by the time they again arrive at the west end of the shop. At this point the completed cars are moved over the transfer table to the paint shop on the opposite side of the pit.

When underframe fabrication is carried out at the shop, as is contemplated later, the heavy raw steel will be brought into the covered platform area at the east end of the fabricating shop, from which point it will be moved into the shop, either over the one track in this shop or by means of the overhead crane serving the shop, to the various points of fabrication. In this shop, progressing westward, the structural steel underframes will be completely fabricated.

Under this arrangement, actual car assemblies will begin at the extreme west end of the erecting shop on construction track No. 3. Here, the underframe will be mounted on trucks, and as this is done the cars will be moved progressively eastward through the shop to completion, as under present operations.

Car Repairs

Car repairs are handled under much the same progressive spot system, although they move progressively westward through the shop in one straight-line operation. Cars for repairs are

stripped down east of the steel car shop and are then moved into and through this shop, where the equipment includes a car straightening slab. From here they are moved along one of the three construction tracks, where all needed parts are applied progressively in order. Reaching the west end of the shop, they are ready for the paint shop.

By programming the work and assigning one track for program repairs to cars, both types of operations will be carried out simultaneously. Present plans do not contemplate concentrating for specific periods of time exclusively on new car construction. The dual operation plan has been followed to date and production has been as was contemplated when plans for the shop were prepared.

The construction of the new shop facilities at Brainerd required the use of the following materials:

- 34,214 lin. ft. of treated timber piling
- 14,000 cu. yd. of reinforced concrete
- 535 tons of reinforcing steel
- 81,347 sacks of cement
- 1,555 tons of structural steel
- 24 tons of anchor bolts
- 1,143,000 bricks
- 62,874 glass blocks
- 12,295 window lights
- About 18,500 lin. ft. of tracks
- 181,400 sq. ft. of paved runways and storage platforms

Plans and specifications for the new shop were prepared by Toltz, King & Day, St. Paul, Minn., under the direction of the engineering department of the Northern Pacific. The work in the field was done under contract by the Al Johnson Construction Company, Minneapolis, Minn., acting in the capacity of general contractor. Operations at the shop are carried out under the general direction of F. G. Moody, superintendent car department.

* * *

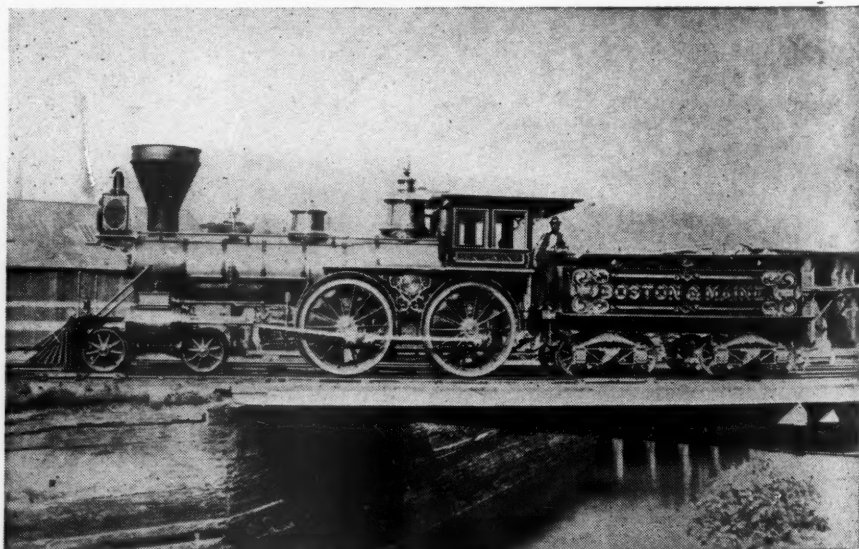


Photo courtesy of W. A. Lucas

The Boston & Maine's "General Grant" at Massachusetts Locomotive Works (American Locomotive Company) in 1867

Seeks to Wipe Out Long-Haul Traffic

Trade Commission would regionalize production by forbidding absorption of freight charges needed to reach distant markets

PART I

By LEON LEIGHTON*

THIS country is urging European nations to eliminate tariff and customs barriers in order to permit unimpeded flow of trade throughout the continent without regard to national boundaries. In our own country, the Federal Trade Commission is engaged in a crusade to destroy all national and regional markets and to restrict each producer to selling in his own back yard. In a case now pending before the United States Supreme Court¹ it is insisting that its program become the law of the land.

Ordinarily a producer computes his cost, adds his desired margin of profit, and arrives at the amount which he wishes to net at his mill. The addition of the respective freight charges to this "mill net" determines the delivered price which he would like to get in each market. But he must meet the delivered price of his competitors in any market where he wants to sell. Therefore, if he pays a higher freight rate than a competitor, he must "absorb" enough of that excess to make his delivered price competitive. This will shrink his "mill net" and his profit accordingly. A producer often decides to accept a smaller profit on added business obtainable in certain markets because the increased volume reduces the unit cost on all his production. But he cannot afford to accept this smaller profit on his entire output.

National Distribution

A different aspect of the same problem arises with many nationally advertised consumer goods. These are often sold at a uniform delivered price which applies in all markets. Here all producers must meet the lowest uniform price fixed by any competitor. The "mill net" realized by each producer in each market varies according to the variations in freight charges.

Our present system of national distribution depends upon this freedom of the manufacturer to vary his "mill net" in accordance with the competitive situation in each market. The Federal

Trade Commission proposes to require each manufacturer to realize identical "mill nets" from all his customers, and to outlaw any method of selling at a delivered price which involves an element of "freight absorption." *The practical result of the commission's proposal would be to preclude every manufacturing plant from serving any market to which a competitor enjoys a lower freight rate; and to subject the consuming public in each market to a tight monopoly controlled by the nearest producer.*

The foregoing italicized statement does not emanate from the imagination of this writer. It is found in the opinion of the United States Circuit Court of Appeals which gives its reasons for setting aside the order of the Federal Trade Commission now before the Supreme Court, which circumscribes the territories in which each producer of cement would be permitted to sell. The commission itself acknowledges that this result would follow. This crusade of the commission would destroy industries and devastate communities and whole regions. The railroads could not survive such a blow—their very existence depends upon the prosperity of the industries and the territory which they serve. Their tenuous lease on life would not endure even until destruction had been fully accomplished. The commission also proposes to paralyze the railroads immediately by eliminating what it is pleased to call "economically wasteful cross-hauling."

The commission does not use this term in its accepted meaning of two shipments of the same commodity crossing each other in transit. Under its definition, a shipment to New York from Boston of a commodity which could have been purchased in Baltimore (a nearer source of supply) is a "cross-haul." The commission has decided to eliminate "cross-hauling" as thus defined by requiring that transportation into each market be limited to the nearest source of supply and that transportation out of each plant be restricted to its "natural home area."

This ukase of the commission would result in an immediate reduction of at least 30 per cent in the revenues received by the railroads from carloads in the manufactures and miscellaneous classification and from less-carload freight². The total revenues derived from these classifications in 1946 were \$2,600 million and \$475 million, respectively, a total of \$3,075 million. A 30 per cent reduction would, therefore, amount to \$922 million a year—twice the annual cost of the recent wage increase granted to the non-operating employees.

Shrinking Revenues

If the commission succeeds in its efforts, the railroads must give up hope of ever being self-sustaining. The government will have to subsidize them as a standby facility to be available in war.

The writer believes that the economic theories advanced by the commission to justify its actions are demonstrably ridiculous, and that our country has become great because of the very system of distribution which the commission seeks to proscribe. However, it is neither necessary nor appropriate to argue that proposition here.

The commission's program involves a complete upheaval in the economy of our country—a revolution which, even if desirable, should be effected only by an act of Congress. Though the commission has persistently urged its views on Congress, that body has steadfastly rejected them and has explicitly declared its will to preserve the present system of distribution. The commission has, consequently, undertaken to accomplish its purpose by administrative subversion of the legislative mandate.

The United States Circuit Court of Appeals discussed a typical application of the commission's theories. Lone Star Cement Corporation has a mill at Lime-dale, Ind., 41 miles southwest of Indianapolis. Lehigh Portland Cement Company has a mill at Mitchell, Ind., 98 miles south of Indianapolis. I quote from the opinion of the court:³

"The largest market for cement in that territory is Indianapolis. Both mills set for themselves, as they have a right to do, a figure of \$1.60 per barrel, which they seek to net at their

* The details are given later in the article.

² 157 F. 2d, at pp. 558-9.

* Mr. Leighton, a member of the New York bar, will be recalled as the author of informative articles on l. c. l. traffic which appeared in the *Railway Age* of May 24 and 31, 1947.
¹ *Aetna Portland Cement Co. v. Federal Trade Com'n.*, 157 F. 2d. 533 (7th Circuit), appeal now pending in United States Supreme Court.

mills. . . . The freight rate from Limesdale to Indianapolis is 29¢ and from Mitchell it is 36¢ so Limesdale has a 7¢ advantage. Limesdale adds its actual freight to Indianapolis as well as to other points. Thus its delivered price at Indianapolis is \$1.89. . . . The Mitchell mill, however, a competitor of Limesdale, is also desirous of participating in the big Indianapolis market. In attempting to realize that desire, it quickly learns three things—(1) that Limesdale is quoting a price in Indianapolis of \$1.89, (2) that its own salesmen cannot sell cement for even a penny more than that, and (3) that the freight rate from Mitchell to Indianapolis is 36¢ (7¢ more than the rate of its Limesdale competitor).

"Mitchell, confronted with this problem, can do one of two things—stay out of the Indianapolis market or go into the market and meet the delivered price of Limesdale, which is \$1.89. Of course, Mitchell might quote a penny or more less than Limesdale but as soon as Limesdale learned of this from its salesmen in Indianapolis, which might be the next day but more likely the next hour, it would be compelled to lower its price so as to meet that of Mitchell. The delivered price of these two mills at Indianapolis would still be the same as it was before, except on a lower level. . . . By any pricing method employed Mitchell would still be confronted by the hard fact that its freight rate to Indianapolis is 7¢ more than that of Limesdale. So by whatever method Mitchell uses to meet Limesdale's price in Indianapolis it would have as its mill net \$1.53. Of course, Mitchell absorbs 7¢ per barrel, but why does it do it? The commission says to restrain competition, when the plain fact is that it couldn't sell in the Indianapolis market without doing so. If Mitchell was the only plant located near Indianapolis, it could and no doubt would include in its delivered price the actual freight. According to the commission's contention, Mitchell should stay out of the Indianapolis market; in fact, under the commission's order it would be required to do so.

"The commission makes much of the fact that Mitchell realizes a mill net of \$1.60 in its home territory but is willing to accept a mill net of \$1.53 on its Indianapolis sales. This, however, is the inevitable result of the desire of Mitchell to sell in the Indianapolis market. If it is to be enjoined from absorbing freight in order to reach this market, it is reasonable to think that its unit cost of production at its factory in Mitchell would be considerably increased and the price of cement to its home customers increased accordingly. In fact, Mitchell without the Indianapolis market might not be able to operate. Thus the commission's solicitude for Mitchell's home customers would in all probability result to their detriment."

Freight Absorption Forbidden

The commission acknowledges that the result of its order will be to exclude many producers from markets which they now serve, but seeks to justify that as an economically desirable objective. commission says:⁴

"Any volume gained by one mill which is not caused by increased total demand is volume lost by another. As one mill presumably decreases its net cost by increasing its volume through sales beyond its natural home area, another mill presumably increases its unit costs because of decreasing volume. We do not say that if systematic freight absorption is disallowed, the volume of each individual producer will nevertheless remain at its previous level. There may be substantial individual gains or losses in production, but these will result because normal competitive forces again have free play in the industry."

The commission, however, is unwilling to permit the sale of a commodity to be determined by "normal competitive forces," but proposes to direct it by administrative fiat. As the Circuit Court of Appeals said:⁵

It [the commission] proposes to make supreme the advantage of a mill selling in the territory where it has a freight advantage, and to make its disadvantage so great when selling in a competitor's territory as to practically preclude it from entering that market. In fact, the advantage and disadvantage would no longer be natural but artificial."

The court also pointed out⁶ that if each cement mill in the country confines

its sales to the territory in which it has a freight advantage, "as the commission would require them to do by its order, each will have a monopoly in its own territory and competition will be at an end. . . . The fact is that the restraint which the commission professes to discern, effected by freight absorption, is insignificant as compared with that which would result if each sold only in its own backyard, as the commission would have them do."

Mills Go Out of Business

Let us see how the commission's swivel-chair philosophy fits the stark facts of economic geography in the case of the Mitchell cement mill.

The commission's order, precluding Mitchell from entering any market where it is subject to a freight disadvantage, would exclude this mill not only from Indianapolis, but also from the two other large markets which it might ordinarily serve—Cincinnati and Louisville.⁷ Mitchell's sales area would be confined to 27 counties in southern Indiana and Illinois in which it has a freight advantage.

The last Census of Business (1939) shows that the total volume of wholesale trade in these 27 counties was \$103 million.⁸ The volume of wholesale trade in the area where the Limesdale mill would have a monopoly was \$465 million—\$374 million in Indiana alone and \$91 million in other counties in central Indiana. Mitchell could not continue to produce at the same cost as Limesdale, having approximately the same productive capacity,⁹ when it is restricted to a market less than one-quarter the size of Limesdale's. Mitchell would soon have to raise the price in its "natural home area." A difference in price of only 1 cent per barrel is certain to divert the business.¹⁰ How long would the Mitchell mill survive under such circumstances?

In the steel industry, the commission's crusade would have a cataclysmic effect. This article confines itself to the ruinous economic and social consequences of this campaign of the Federal Trade Commission, and does not undertake to justify other practices of the steel industry which have been subject to criticism.

If the mills producing steel sheets, for example, were prohibited from competing by absorbing freight, the Sparrows

⁷ Two mills at Osborn (Ohio) have a substantial freight advantage in Cincinnati, and mills at Kosmosdale (Ky.) and at Speed (Ind.) have substantial freight advantages in Louisville.

⁸ Cement is sold chiefly to wholesale dealers. Cement dealers are not separately reported in each county; therefore the entire volume of wholesale trade has been taken as being approximately in the same proportion throughout the state.

⁹ Limesdale has an annual capacity of 2,100,000 barrels, and Mitchell has an annual capacity of 1,900,000 barrels. Moody's Manual of Investments (1947) pp. 1874, 2597.

¹⁰ 157 F. 2d, at p. 540.

Point (Md.) and Lackawanna (N.Y.) mills would have a monopoly of New England, New York, New Jersey, Delaware, Maryland, and the eastern half of Pennsylvania.¹¹ A Detroit mill would have a monopoly of Detroit and the other automotive production centers in eastern Michigan. The Chicago-Gary mills would have a monopoly of the western half of Michigan, northern Indiana and Illinois, Wisconsin and territory west thereof. Each of the important steel sheet consuming centers—Detroit, Chicago, Milwaukee, Cleveland, Toledo, Cincinnati and Philadelphia—would be in the exclusive territory of a single producing point.

Under the commission's program, all the mills in the Pittsburgh-Weirton-Youngstown area, having large capacities, would be restricted to closely contiguous markets having comparatively small demand. In 1938, the capacity of the Pittsburgh mills was 1,500,000 tons of sheet, while the consumption in the territory open to them was approximately 110,000 tons. The capacity of the Weirton-Steubenville mills was 1,160,000 tons, while the consumption in the territory open to them was approximately 55,000 tons.

The total 1946 consumption of sheet was about twice that of 1938¹² (the latest available in the requisite detail). Even if we doubled the foregoing 1938 consumption figures, the Pittsburgh and Youngstown mills could dispose of only 15 per cent of their production of sheets in the territory allotted to them. The commission disregards the effect that destruction of the Pittsburgh and other eastern mills would have on the communities of which they are an integral part. In the Pittsburgh industrial area, 91,500 persons are employed directly by the steel industry, which manufactures products valued at \$725 million. This constitutes 45 per cent of the industrial employment, and 48 per cent of the value of manufactured products, of the area.¹³ In the Youngstown industrial area, 51,000 persons are employed directly by the steel industry, which manufactures products valued at \$435 million. This constitutes 62 per cent of the industrial employment, and 70 per cent of the value of manufactured products. What would happen to the communities in these industrial areas if 85 per cent of their steel production were destroyed?

How would this devastation of industries and communities serve the consumers of steel? After the Chicago mills had wiped their competitors off

¹¹ All of the data about the steel industry is found in a map and memorandum submitted by the United States Steel Corporation to the Temporary National Economic Committee (Ex. No. 1418) printed in Hearings, Part 27, pp. 14,673-5.

¹² Iron Age, Jan. 2, 1947, p. 70, Jan. 3, 1946, p. 80.

¹³ All figures are taken from the latest Census of Manufactures (1939).

the map, they would have no reason to retain the lower prices which had been instituted for that purpose. They could immediately advance their prices, and the amount of such advances would be limited only by their own sense of self-restraint, since their customers would have no other source of supply as the result of the commission's efforts. The commission's theory is that competitors would spring up again if the Chicago mills make the prices too high. This overlooks the harsh reality that "the average investment required for a modern steel works of efficient size is approximately \$100,000,000."¹⁴

In the cement and steel industries, the commission claims to have discovered some evidence that the delivered prices were fixed by agreement among competitors. Of course, agreements to fix prices are clearly illegal and no one questions the commission's duty to prohibit them. But the commission has now undertaken to outlaw *all* selling at delivered prices involving freight absorption, even though a producer acts in the exercise of his own individual judgment and without any agreement or discussion with his competitors.¹⁵

Reaching Distant Markets

Anyone who has ever attended a county fair knows that each farmer sells his produce at the same price as his competitors. If he comes from a distant county and has incurred expense for transportation, the net amount realized by him may be less than that at his own local fair. Despite this, he decides to meet the price prevailing at this market, not because of any agreement with other farmers, but because he soon finds out that no buyer will pay more to him than to others.

The largest consumer market is found in the North Atlantic States (New York, New Jersey and Pennsylvania) and the East North Central States (Ohio, Indiana, Illinois, Michigan and Wisconsin). These eight states account for 55 per cent of the national volume of wholesale trade, and for 45 per cent of the national volume of retail trade.¹⁶

If a producer wishes to sell any substantial volume of automobiles, cigarettes, textiles, fresh meats, or packaged foods (for example), he must meet the price prevailing in those concentrated markets. But most of the manufacturing plants in such industries suffer from a freight disadvantage in many or all of those markets. A prohibition against freight absorption would therefore result in destroying many plants which

have been established in their present location for generations, and on the basis of which states and whole regions have been developed.

Relocating Automobile Plants

The automotive industry in the nation employed 458,700 persons in 1939, and the value of its products was \$4,040 millions. Michigan accounted for 286,500 employees and for products valued at \$2,285 millions, or 62 per cent and 56 per cent respectively of the national totals. This industry accounted for 46 per cent of the industrial employment and for 52 per cent of the value of manufactured products in the state of Michigan. If the Michigan plants are prohibited from meeting the prices of plants located nearer to each respective market, they could not continue to serve the national markets required for their assembly-line mass production. In the low-priced car field, for example, the major portion of the business would be diverted to assembling plants operated in or near Boston, New York City, Philadelphia, Baltimore, Norfolk, Atlanta, Buffalo, Cincinnati, Louisville, Chicago, Memphis, St. Paul, St. Louis, Kansas City,

Dallas, San Francisco and Los Angeles.¹⁷

The value of cigarettes produced in the nation was \$1,038 million. North Carolina and Virginia accounted for \$866 million, or 83 per cent of the total. The Virginia output represented 33 per cent of the value of manufactured articles in the entire state.

The value of cotton broad woven fabrics produced in the nation was \$869 million. North Carolina, South Carolina, Georgia and Alabama accounted for \$602 million, or 69 per cent of the total. The same states accounted for 81 per cent of the cotton yarn produced. The Carolinas and Virginia accounted for 41 per cent of the rayon produced in 1939, and their production has increased substantially since then.

(Continued on page 60)

¹⁷ This information about the location of assembly plants is found in *New Automobiles in Interstate Commerce*, 259 I.C.C. 475, at pp. 478-9. The commission said (p. 479): "The hauls from the assembling and storage points to given destinations outside central territory are generally short compared with those from the manufacturing points, and accordingly Ford and General Motors, the two producers having the most assembling plants, are at considerable geographical advantage in shipping the automobiles built at such plants. General Motors sells its automobiles f.o.b. destination. . . . Ford follows substantially the same policy. . . . The other producers generally sell f.o.b. their main factories."

COMMUNICATION . . .

The Truth About Payment for Street Grade Separations

CHICAGO

TO THE EDITOR:

On page 44 of the November 29 issue of *Railway Age*, in the article entitled *New Orleans and Railroads to Finance Terminal Project Jointly*, appears the statement, "The relative location of the 24 grade separation projects is shown on the map. Their cost will be borne by three parties. The city will be responsible for \$12,000,000, the state for \$1,770,000 and the railroads for \$2,800,000. Since virtually all of the grade crossing eliminations involve city streets and not state highways, the railroads would normally be held responsible for the entire cost, since they would not be eligible for federal aid funds."

I wish to take exception to the italicized portion of the foregoing quotation as it does not correctly state the facts. Perhaps the author of the article wished to emphasize the point that, because the grade crossing eliminations involved city streets, and not state and federal highways, no state or federal funds were available, but, unfortunately, the statement made goes much further and implies that where state and federal funds are not available, "the railroads would normally be held responsible for the entire cost." I am sure he did not intend to convey this impression.

The railroads in the New Orleans negotiations contended that the cost of grade crossing eliminations should be assumed by the interested parties in proportion to benefits received and presented convincing evi-

dence in support of that position. In New Orleans, as is almost always the case, the public, and not the railroads, receives the major benefits. This fact justified the city's assuming 85 per cent of the cost of the separations. Wide publicity was given to the 85 per cent participation by the city in the cost of grade separations in the campaign which was vigorously conducted prior to the referendum by the taxpayers of the city of New Orleans on the bond issue to finance the city's portion of the cost of the grade crossing eliminations.

In the city of New Orleans, only taxpayers vote on such bond issues, and after a full and complete radio and newspaper campaign, in which the opposition was capably and vociferously represented, the bond issue carried, receiving the necessary majority vote both in the number of taxpayers and on the basis of dollars of taxes paid. In light of these facts, I consider the statement to which I have taken exception a very inappropriate one.

C. H. MOTTIER

Vice-President and Chief Engineer,
Illinois Central

[Mr. Mottier's point is well taken. It was the intent to convey the thought that, because most of the New Orleans grade separation projects involve city streets, they would not come in for state or federal aid. However, the statement relative to the responsibility of the railroads, as questioned by Mr. Mottier, is—as we and those in the railroad industry know full well—not in accord with the facts. We are grateful to Mr. Mottier, who played an important part in the negotiations leading up to the railroads' agreement with the city, for correcting the record in this regard.—EDITOR]

¹⁴ Memorandum submitted by United States Steel Corporation to Temporary National Economic Committee (Ex. No. 1410), printed in Hearings, Part 26, pp. 13,901-2.

¹⁵ *Rigid Steel Conduit Ass'n*, 38 F.T.C. 534, at pp. 595-6.

¹⁶ All figures are taken from the latest Census of Business (1939).



An incline on the Sao Paulo Railway in Brazil

South America's Railroads Look to the Future

PART I

By **SEYMOUR T. R. ABT**

*Transportation and Communications Division,
Office of International Trade,
U. S. Department of Commerce*

SOUTH AMERICA's railways are still far from adequate to meet the demands of that continent's economy. Lines are run down, equipment is antiquated, and many areas are untapped either by rail or modern motor road. Yet no one is more aware of their railways' shortcomings than the South Americans themselves.

This awareness is lively and real. It is probably true that not until the recent war—when the Allied war machine cried for the continent's hidden wealth of precious raw materials—did South America know its own economic strength. At the same time, exports of finished goods from the industrialized United States, Canada, and Western Europe virtually stopped. The war made clearer perhaps than ever before the realization that the development of South American economy would remain

stunted as long as transportation facilities were inadequate for its promotion.

Today there are fertile agricultural lands that are not worked, largely because their produce has no way of moving to consumer centers. Mines cannot transport their minerals to smelters or factories, or to seaboard for export. Valuable timber stands untouched in transportationless forests. Pack trails are the only contact between uncounted isolated communities and modern western civilization.

The factors that have impeded the development of a continental railroad

network are too many and complex for more than a mere mention here. Enervating temperatures, torrential rains, rugged topography, disease-ridden swamps, and a lack of indigenous coal are among the natural difficulties. Many lines were originally built with foreign capital for private interests, and without connection with other roads. There is no uniformity of gage. There is virtually no railway-equipment industry. The competing motor roads came along before the railroads had attained their maturity.

A survey of recent railroad developments in South America reveals certain definite trends. Foremost among these is the move toward nationalization. There is a widely held opinion that the only way to make the railroads function in the public interest is to bring them under state ownership. Privately owned

lines, especially those under foreign control, are rapidly losing out. Though the outstanding example is Argentina, which has nationalized virtually its entire system, there is not now a republic in South America without at least some state ownership of railroads.

There is an emerging pattern of international lines. Advocates of hemispheric solidarity can find no more heartening development than this desire of neighboring countries to connect by rail. The transcontinental line from Santos, Brazil, on the Atlantic, to Arica, Chile, on the Pacific, is foremost among these lines, but there are others of significance.

Within national boundaries there is a determination to round out fragmentary networks. This is a slow and expensive procedure. Many lines are isolated and not part of any system. The stated objective of many governments, however, is the integration of such roads into coherent organizations. Among these governments are Brazil, Columbia, and Venezuela.

Important as these trends are, South America's primary railroad consideration today is the rehabilitation of existing lines. The tremendous traffic increases of the war years, coupled with the neglected maintenance induced by the lack of imports, have created intolerable conditions in many areas. The deterioration of roadbeds and rolling equipment is apparent everywhere. Most railroad expenditures that are now being made are designed to repair and replace facilities, rather than to expand them. The larger plans are of serious import, but secondary.

Argentina . . .

Argentina's railways are in the midst of a transitional period of great moment. Until 1946 federal roads were operated together with privately owned lines in a well-developed system. In 1947, however, the Argentine government officially took over the three French-owned railways and completed most of the negotiations for the acquisition of the British-owned lines. Since these foreign interests accounted for almost 70 per cent of the total mileage and the remainder was already federally owned, in effect all common-carrier railroads are now included in the State Railways organization.

The purchase by the government of the private lines was not an isolated act, but rather a phase in the development of a determined nationalistic policy designed to make Argentina a leading power. In 1946 the administration announced a Five-Year Plan for the period 1947-51, including a tentative railway program. The plan calls for the

completion of a few lines already under construction, the initiation of one or two new projects, and the purchase and modernization of rail equipment.

The lines which have been under way are designed for international traffic. The most noteworthy of these is the Salta-Antofagasta Railway, which has received considerable publicity in recent years. When completed, it will link the city of Salta with the town of Socompa on the Chilean frontier. This line is of considerable importance to both countries, as is noted later, in the Chilean section of this review. Many delays in its completion have occurred in the past, but authorities expect it to be in operation in the near future.

Several short branch lines have also been under construction in the region of the Brazilian border. Their purpose is to connect the railways with the international bridge at Paso de los Libres, and recent reports indicate that they have been completed. Among the new lines, consideration has been given to one to connect with two asphaltite mining regions. One of these is located around Malargue in the western Province of Mendoza. The other is further south in the Province of Neuquen.

The existing network, however, fans out of Buenos Aires and has long reached the country's main production and population centers. More important to the development of the Argentine economy than the construction projects mentioned is the revitalization of the existing plant. The Five-Year Plan calls for the expenditure of about \$195,000,000 on behalf of the railroads. It is probable that the greater part of the appropriation will be utilized to purchase badly needed rolling stock and to modernize existing equipment.



Switchbacks are numerous in the mountains of South America

The requirements of the entire system, following 8 years of deferred maintenance, are huge. Repairs and replacements are the greatest concern of the railway management. In December, 1946, bids were called for 350 freight cars, and 210 Diesel-electric locomotives were ordered the following month. In July, 1947, there were requests for bids to supply 2,500 railway cars and radio equipment for car-to-car and car-to-station communication. Reports from various sources indicate that considerably more equipment than that here mentioned has been purchased, ordered or sought in recent months.

Uruguay . . .

There is only one railway project in Uruguay that is considered by competent officials to be of real importance. It is the extension toward the Brazilian border of the State Railway line which runs from Florida to Blanquillo through Sarandi del Yi. When constructed, the extension will be approximately 43 miles long. Completion of a 30-mile section, begun some time ago, is the immediate objective. This will carry the railroad over the Rio Negro. In 1947 a sum approximating \$900,000 was allotted to the completion of this section, including a bridge over the river. An additional \$700,000 was allotted for continuation of the extension beyond the river.

Uruguayan officials feel that the first section of the new road is destined to open up one of the most fertile and productive regions in the country. Cattle and sheep are abundant in this area, which has hitherto suffered from a lack of transportation facilities. Agricultural lands in cultivation produce wheat, corn, oats, linseed, and other crops.

Paraguay . . .

None of the 10 railroad companies in Paraguay had any projects scheduled for 1947, beyond normal maintenance. One new line has been under discussion for several years, but apparently nothing is being done toward constructing it at the present time. This is the railway to connect with the Brazilian system extending from Santos.

The projected line is to run from Capitan Sosa, terminus of the 35-mile government-owned National Northern Railway, to Pedro Juan Caballero on the Brazilian border. Work previously had been reported going on to connect the Brazilian railway system with the border at this point. Paraguay has not yet begun construction on its side, however, and the future of the entire project is questionable.

[Part II of this article will appear in an early issue.—EDITOR]

I. C. C. Bureau Puts Deferred Maintenance at \$450 Million

All found in such track accounts as ties, rails, other track material, and tracklaying and surfacing—"approximate normal maintenance" exists with respect to other facilities

DEFERRED maintenance in the amount of about \$450,000,000 has currently accumulated on the railroads, according to a study which has been made by the Engineering Section of the Interstate Commerce Commission's Bureau of Valuation. The study, dated October 30 and made public last week, carries the usual disclaimer to the effect that it "has not been examined or passed on" by the commission.

It takes issue at the outset with "testimony which was offered in Ex Parte 166 [the pending freight-rate-increase case] to the effect that there was over-maintenance existing on railroad property today because of the large expenditures in recent years." Presumably the reference was to the presentation of a witness for the National Association of Railroad and Utilities Commissioners—R. V. Gilbert, former research director for the Office of Price Administration, who made an "overmaintenance" charge at the September series of Ex Parte 166 hearings in Washington, D. C.

"We do not concur in this view," the bureau said, "since it is obvious that unless maintenance expenditures are related to the gross ton-miles of traffic and adjusted for (1) the amount of non-productive overtime, (2) the fluctuations in the purchasing power of the maintenance dollar, and (3) the effect of the increase or decrease of the intensity of traffic on unit cost, it would be impossible to measure the adequacy of current maintenance."

Except for some \$10,247,000 found in Account 201—Superintendence, the \$450,000,000 of deferred maintenance is all found on the track in such items as ties, rails, other track material, ballast, and tracklaying and surfacing. In some instances small amounts of indicated "overmaintenance" were disregarded "to give some weight to the inefficiency of labor" during the war.

The \$450,000,000 is the result of adjustments applied to an indicated total deferred maintenance of \$517,500,000. The adjustments reduced the indicated undermaintenance on rail and such "associated items" as other track material, ballast, and tracklaying and surfacing by 20 per cent—because of the obsolescence factor, since "obsolescence in rail does not have to be made good." The

total of these reductions was \$79,621,000, bringing the \$517,500,000 figure to \$437,879,000, and \$450,000,000 was adopted as a round-number estimate.

Before the 20 per cent reductions were applied, the deferred maintenance figures were: Rail, \$137,300,000; other track material, \$107,543,000; ballast, \$16,704,000; tracklaying and surfacing, \$136,557,000. Aside from superintendence, ties was the only other item with respect to which undermaintenance was indicated, the total being \$114,171,000. The study attributed the deferred maintenance which it found to priority controls and labor shortages in the war and postwar periods, and its general finding as to all accounts, except the track accounts, was that "approximate normal maintenance exists."

Comment on Equipment

Thus no deferred maintenance was shown for bridges, trestles and culverts, station and office buildings, signals and interlockers, shop machinery, or rolling stock. "In respect to equipment," the study said, "deferred capital expenditures should not be confused with deferred maintenance, and while we appreciate that there is a shortage of freight-train cars which results in cars being kept in service beyond the economic service life, the fact that patch-work repairs only are being made to such cars does not indicate deferred maintenance. This type of deferred maintenance will eventually be taken care of through retirement when traffic declines or when more new cars are available."

In releasing the study, which is the first of its kind to be thus made public, I. C. C. Secretary W. P. Bartel pointed out that the similar studies have been prepared in the bureau annually.

In explaining its methods, which generally involve detailed chart studies except for the track accounts, where normal requirements are computed on a unit basis, the bureau suggested that they "more accurately determined deferred, surplus or normal maintenance than any other method." It also said: "We do not believe any method that is related to the yearly budget measures, except by accident, the physical deferred

maintenance in the property, since budget amounts are a measure of the financial ability of a road to perform definite amounts of maintenance work in a particular year, and usually those expenditures are so involved with betterment work that they frequently create surplus maintenance in anticipation of future needs in accordance with some long-term improvement program."

Long Haul Traffic

(Continued from page 57)

The value of woollens and worsteds produced in the nation was \$685 million. The New England States accounted for \$422 million, or 62 per cent of the total, 46 per cent being represented by Massachusetts and Rhode Island alone.

The value of fresh meats produced in the nation was \$763 million. Illinois, Minnesota, Iowa, Missouri, Nebraska and Kansas accounted for \$388 million, or 51 per cent of the total. The same states, with the addition of the Dakotas, Michigan and Ohio, accounted for 86 per cent of the total value of cereal preparations.

The value of canned and dried fruits and vegetables produced in the nation was \$587 million, 29 per cent of which was accounted for by California alone. Wisconsin alone accounted for 49 per cent of the total value of cheese produced, and for 26 per cent of the total value of condensed and evaporated milk.

The same problem exists in the case of producers' goods. As already pointed out, the national value of products of the automotive industry is \$4,040 million, 56 per cent of which is represented by Michigan alone. The value of products of steel works and rolling mills is \$2,720 million, 56 per cent of which is represented by Pennsylvania and Ohio. The output of petroleum refineries is valued at \$2,461 million, 43 per cent of which is represented by Texas and California. The value of products of newspaper and commercial job printing plants is \$1,413 million, 45 per cent of which is represented by New York, Illinois, Pennsylvania and Ohio. The value of "chemical products not elsewhere classified" amounts to \$840 million, 65 per cent of which is represented by New Jersey, New York, Ohio, Pennsylvania, Michigan and West Virginia. The value of agricultural machinery and tractors is \$422 million, 68 per cent of which is represented by Illinois and Wisconsin. The value of aircraft and parts amounted to \$280 million in 1939, 32 per cent of it in California.

[Part II of this article will appear in a subsequent issue.—EDITOR.]

GENERAL NEWS

New Motor Bus System Approved by the I. C. C.

Santa Fe to get 39 per cent interest in company taking over its bus business

Division 4 of the Interstate Commerce Commission has approved plans and financing whereby all passenger-carrier operating rights of the Santa Fe Trail Transportation Company, subsidiary of the Atchison, Topeka & Santa Fe, will be acquired by the recently-organized Transcontinental Bus System in which Trail will have a 39.1 per cent stock interest. At the same time Transcontinental will also acquire Trail's 50 per cent interest in the Southern Kansas Greyhound Lines, control of the Continental Bus System and its subsidiaries, and the operating rights of Dixie Motor Coach Corporation.

Transcontinental, a Delaware corporation, was organized last June, and the present report authorizes it to finance the approved transactions by issuing 896,100 shares of \$1-par common stock and \$6,775,500 in 15-year, 4 per cent, sinking-fund debenture bonds. Trail's 39.1 per cent interest will be represented by stock with a par value of \$350,206, while 34 per cent with a par value of \$305,021 will go to Continental and 26.9 per cent with a par value of \$240,873 to Dixie. The debentures will be distributed in the same proportions. A footnote in the report stated that Trail will continue on its own as a motor carrier of property.

Not Competitors—In combining the bus operations involved, Transcontinental will be building its system out of routes which the division's report said are "almost entirely complementary." Trail operates in Illinois, Missouri, Nebraska, Kansas, Oklahoma, Arkansas, New Mexico, Colorado, Utah, Arizona, California and "a small part of Texas," including routes between Chicago and St. Louis, Mo., San Francisco, Cal., and Los Angeles. Continental, as the report put it, operates "over an extensive network of regular routes almost entirely in Texas the only exceptions being routes extending to Shreveport, La., Tucumcari, N.M., and Denver, Colo. Dixie's operations were described as being "chiefly in eastern Texas, but also in Arkansas, Louisiana and Oklahoma."

In approving that phase of the plan which involves Trail's participation, the commission found that Transcontinental would not thereby become affiliated with a railroad under the provisions of the Interstate Commerce Act's section 5(2)(b). Those provisions stipulate that where a railroad or a railroad affiliate is involved

in a motor merger or acquisition case there must be a special showing that the proposed transaction will enable the railroad "to use service by motor vehicle to public advantage in its operations and will not unduly restrain competition."

In this connection the report called attention to the proposed division of Transcontinental's stock among Trail, Continental and Dixie, as set out above, and noted that neither Trail nor its parent railroad own any of the stock of Continental or Dixie. It was also pointed out that Transcontinental will have nine directors, only two of them being Trail representatives.

"The situation that would result upon consummation of the instant transactions," the report continued, "is not entirely dissimilar to that obtaining in the Greyhound System where the Greyhound Corporation, which conducts certain motor bus operations in its own name, also owns a joint or controlling stock interest in several of its operating subsidiaries, the remaining stock in such subsidiaries being held by railroads. . . . We have never found that the Greyhound Corporation was affiliated with any of the railroads owning a portion of the stock of its operating subsidiaries, and transactions involving the Greyhound Corporation have been approved without the proof requirements of the proviso of section 5(2)(b) being applied."

Precedents Cited — Along the same line, the commission mentioned another case wherein it approved transactions which resulted in American Bus Lines and the Chicago, Burlington & Quincy owning 51 and 49 per cent, respectively, of the Burlington Transportation Company. There it concluded that American was not affiliated with the Burlington in a way which would make applicable the proof requirements of section 5(2)(b).

The division's majority report represented the view of Commissioners Mahaffie and Rogers, while Commissioner Miller dissented. The latter thought that section 5(2)(b) applied to the transaction, and that the majority decision went "a long way toward nullifying the proviso . . . which was placed in the act to preserve the independence of motor carriers from railroad domination or affiliation, except under special safeguards there imposed." Mr. Miller also said: "Clearly so long as Trail has 39 per cent stock voting power, an investment of \$4,520,000, and a guaranteed representation on Transcontinental's board of directors, it is reasonable to believe that the latter will be managed and operated in the interest of Trail and the railroad to a substantial degree—a degree much greater than that of any other stockholder."

The dissenting commissioner went on to point out that although the majority report stated that American Bus Lines, which

(Continued on page 65)

Railroads Make Final Plea for Higher Rates

Oral argument in Ex Parte 166 ends this week ; shippers, N.A.R.U.C. urge hike

The final phase of Ex Parte 166, wherein the railroads are seeking permanent freight rate increases averaging 30 per cent, was launched in Washington, D. C., this week, where the Interstate Commerce Commission was hearing oral arguments scheduled to run 39½ hours. The six-day argument, which followed a week of final hearings also at Washington, was scheduled to be completed on December 20. Any permanent increase authorized would supplant the interim advance averaging 8.9 per cent, which became effective October 13.

As this issue went to press, the argument had been highlighted by acknowledgments by the National Association of Railroad and Utilities Commissioners and the National Industrial Traffic League that the railroads are entitled to rate advances in order to offset rising costs resulting from higher wages and rules changes for operating employees. The N. A. R. U. C., basing its position on the testimony of Dr. R. V. Gilbert, former Office of Price Administration economist (see *Railway Age* of December 13, page 68, and previous issues), argued that any additional increase should not exceed 5 per cent above the present level. The N. I. T. League, while declining to suggest any specific advance, conceded that the interim increase was "insufficient" to meet the carriers' needs.

Carriers' Argument—The railroads' views, meanwhile, were summarized by Jacob Aronson, vice-president and general counsel of the New York Central, and chief counsel for the petitioners, who told the commission that every day that relief is delayed means irreparable loss to the railroad industry, which, he said, can "ill afford" such losses. "It was never truer than in this case that 'justice delayed is justice denied,'" he added.

Declaring that no case for an increase in rates could be more "unanswerable" than the railroad presentation, Mr. Aronson recalled that, despite the largest volume of freight traffic in peacetime history, the Eastern roads in 1947 will earn less than 2.3 per cent on net depreciated investment. Comparable figures for the South and West, he said, would be less than 3¼ per cent and 3¾ per cent, respectively.

The N. Y. C. officer asserted that, because of manpower and material shortages, it was impossible for the railroads adequately to maintain, much less improve,

their plant and equipment facilities during the war years. At the same time, he noted that the commission's Bureau of Valuation has estimated that there is currently almost a half billion dollars of deferred maintenance in track facilities. "To catch up on this under-maintenance, to replace worn-out equipment and to get going on a broad program of modernization and rehabilitation will take much more in the way of railroad earnings than are now available," he continued, emphasizing that while depreciation charges are accruing on the basis of past costs, replacements are costing two and three times as much as the original cost of items which are being replaced.

Public Must Pay—"This is particularly true in the case of locomotives and freight and passenger cars," he said. "America, including its shipping public, has no right to complain of freight car shortages or of any inadequacies in transportation service unless it recognizes the inescapable necessity of paying compensatory rates."

Mr. Aronson also noted that if the work of 1946 had been performed at 1939 unit costs, railroad payroll and payroll taxes would have been some \$2,060,000,000 less than they actually were and that if all items that constitute operating expenses in 1946 had been paid for at 1939 unit prices, the total costs in 1946 would have been more than \$3,000,000,000 less than they were. "The magnitude of this burden will be understood when it is realized that from 1931 to 1940, inclusive, the gross operating revenues of all the railroads of the United States averaged approximately \$3,700,000,000 a year," he said. "In other words, the increases in costs alone would have absorbed more than 80 per cent of the gross revenues in the decade of the Thirties."

Mr. Aronson said that the railroads, recognizing that increased costs are being incurred as to all classes of traffic, have undertaken to distribute the load on that basis as widely as possible. In this connection, he said that the carriers have proposed percentage increases with limited exceptions confined to those classes of traffic where long standing competitive relationships have dictated different treatment.

Others' Prices Raised—The carriers' counsel argued that unregulated industries, which, he said, include practically all of the Ex Parte 166 protestants, are in a position to adjust and have adjusted their prices contemporaneously with the advent of higher costs, while the railroads' increased costs already have become effective and are currently being incurred. Describing the railroads' proposal as "conservative," he told the commission that the principal question becomes not so much whether the nation can afford to pay increased freight rates, but rather whether it can afford not to pay increased rates and thus invite a disintegration of the railroad plant and the vital service which it renders.

Mr. Aronson described as "reckless" Dr. Gilbert's charges that the eastern railroads were inefficiently managed and criticized the basis which the N. A. R. U. C. witness employed at arriving at the railroads' prospective traffic and revenue. After comparing the testimony offered by Dr. Gilbert to that given by Dr. Julius H. Parmelee, vice-president of the Association of

American Railroads and director of its Bureau of Railway Economics, Mr. Aronson, in response to a question from the bench, said that Dr. Parmelee, in presenting the railroads' estimated traffic and revenue, had appeared before the commission as a statistician rather than as an economist who "pretends to cover the waterfront as some do."

The railroad spokesman also asserted that (1) the commission, including the state commissions, should "raise their sights" with respect to the railroads' needs; (2) the railroads can no longer continue on a "starvation basis"; and (3) a decline of as much as 10 per cent in freight volume would be "disastrous" to the carriers, the proposed rates of which, he said, contained no "cushion"; and (4) the estimates of the railroads have been verified by Secretary of the Interior Krug's report on "National Resources and Foreign Aid" (see *Railway Age* of October 25, page 56). That report, Mr. Aronson noted in part, included a forecast that there would be a drop in food production in 1948, which, he said, could easily result in a decline in railroad traffic and add to the carriers' financial problems.

Installment Buying—Mr. Aronson also described as "a condition to be deplored rather than applauded" the equipment trust plan for procuring new equipment. Such a plan, he said, involved the same details as buying furniture on the installment plan, but is the only alternative because of rising prices and inadequate earnings. He further asserted that the cheapest expenditure that America could make is to give the nation a prosperous and dividend-paying railroad transportation system. "To pinch pennies in the case of the nation's railroads is to invite disaster," Mr. Aronson contended.

Also arguing in support of the petitioners, R. J. Hagman, general solicitor of the Great Northern, said that the Lake Superior region iron ore carrying roads should not be exempted from any increases authorized by the commission because of the contribution which revenue from such traffic makes to the railroads' overall income. Observing that there had been little change in the iron ore rates over those in effect approximately 25 years ago, Mr. Hagman also noted that those were the only rates in the entire country exempted under the commission's interim order in Ex Parte 166 in October.

F. G. Hamley, representing the N. A. R. U. C., told the commission that, on the basis of Dr. Gilbert's testimony and "of our own appraisal" of other evidence in the proceeding, it would appear that the railroads should be granted additional freight rate increases sufficient to produce approximately \$400,000,000 additional revenue per year. A relatively larger portion of this additional revenue, he said, should go to the Eastern district roads.

Hamley Sets a Limit—"This additional revenue," Mr. Hamley said, "will enable the railroads to render adequate and efficient service and to earn a fair return for the owners. With such revenue, the requirements of the National Transportation Policy and of section 15(a) of the Interstate Commerce Act would be fully

met. Rate increases which would produce additional revenue substantially in excess of \$400,000,000 have not been justified on the record; they would exceed the measure of generous treatment to which the roads are justly entitled; they would lay the groundwork for a tremendous diversion of traffic within the next few years; and they would give another big boost to the inflation whirlwind which threatens to engulf us—all to the detriment of the general public interest and, indeed, to the detriment of the railroads themselves."

Mr. Hamley asserted that an increase of 5 percent above the interim rates would yield, according to Dr. Gilbert's estimates, \$397,000,000 of additional freight revenue, which, he said, is "substantially more" than the amount of the increased costs in wages and supplies since September 1, as estimated by Dr. Parmelee. Such an increase, he added, would give the railroads an estimated 1948 net railway operating income of \$1,180,000,000 and an estimated net income of \$882,000,000. The latter figure, he also observed, comes within \$8,000,000 of the railroads' originally-stated 1948 goal, and would be \$382,000,000 more than the railroads have, over many years, suggested as necessary to meet their requirements.

"Whatever you find it necessary to grant the railroads in increased rates must come from the pockets of others the country over," Mr. Hamley continued. "It would be a pleasant duty if you could fill the railroads' Christmas stocking without taking a like amount from the stockings of others. The duty is not so pleasant when you are asked to be liberal with someone else's money. The state commissions never have and do not now ask that the roads be dealt with in a niggardly fashion—neither do we think the roads are entitled to open-handed bounty. We fully understand the importance of maintaining a strong and adequate transportation system. At the same time, the state commissions, as well as this commission, have regard for the great public interest in maintaining the lowest level of rates consistent with statutory and constitutional requirements."

Mr. Hamley also argued that (1) the net railway operating income of \$1,283,000,000 which the railroads seek for 1948 is greater than that which they enjoyed in any year between 1921 and 1946, with the exception of 1942 and 1943; (2) no testimony was produced by the railroads as to why their 1948 net railway operating income and net income suddenly have become inadequate by substantial amounts; and (3) the railroads, in no year since 1921, have received a net income as great as the \$953,900,000 which they seek for 1948.

N. I. T. League's Position—J. S. Burchmore, representing the N. I. T. League, said that the league takes the position that, on the basis of the evidence offered, the carriers are in need of additional revenues in the country as a whole for the purposes stated in the national transportation policy. The league, he said, will leave to the commission determination of the question as to the extent of the carriers' needs and the method of providing

such revenues. But the railroads, he contended, should not be given the full increases proposed as the sole means of achieving a specified rate of return.

Mr. Burchmore said that the league takes no position, for or against the carriers, as to what is a normal fair rate of return. Any increase in freight rates that may be authorized by the commission, he added, should be accompanied by an admonition that the railroads provide adequate facilities and a pronounced improvement in their services. At the same time, he asserted that the national economy and the cost of living require that transportation costs be held down to the lowest level consistent with maintaining transportation in full vigor. Higher freight rates, he added, may easily result in less consumer buying in "these days of a national crisis."

The N. I. T. League spokesman said that any further increases granted should be published in the first instance in a master tariff, which, he added, should completely supersede the Ex Parte 162 master tariff heretofore published, with all increases being consolidated into one publication. He contended that in the event a greater percentage increase in rates is found necessary in one territory than in others, the interterritorial increases should be a blending of the two and not the higher increases authorized for one territory.

Mr. Burchmore also praised the commission's course in expediting the proceedings while at the same time giving the shippers and the public "fair opportunity for preparation and to be heard on the important questions of rate relationships and effects of increases on business." He described Ex Parte 166 as a proceeding "far more than merely a revenue case of unprecedented magnitude."

Opposed to Dividends—J. K. Knudson, representing the Department of Agriculture, stated that, "in the light of the portents of the present national crisis," now is not the time to increase the freight rates to the full extent sought by the carriers in order "merely to furnish the railroads a profit higher than they have received during any year since 1921 with the exception of one war year," nor is it the time "to provide the railroads with revenues with a primary thought in mind of putting them in a position to pay greater dividends to stockholders, or, in view of the present price situation, to make expenditures in excess of those immediately required to furnish adequate service."

"Now is the time to demand of the railroads the most scrupulous attention to honest, economical and efficient management that they have ever given," he also said. "Now is the time in the public interest to insist upon railway transportation service at the lowest cost consistent with the furnishing of such service. We believe that the foregoing objectives can be accomplished without the commission granting anything like the increases proposed by the carriers."

According to Mr. Knudson, an across-the-board advance of 15 per cent, including the 8.9 per cent increase already granted, would not be unduly inflationary and would minimize the effect of rate-relationship

"distortions" that would arise, he said, if the carriers' proposals were met in full. A 15 per cent increase, he told the commission, would produce, on the basis of department calculations, a 1948 net railway operating income of \$1,041,971,000 and a 4.6 per cent rate of return on net investment.

Wants "Temporary" Rise—At the same time, Mr. Knudson said that the department opposed any form of tariff publication of the rate increases that might arise out of the case that would "graft" such increases on the permanent rate structure. "We believe," he said, "that the commission should clearly designate any increases it may order as temporary in nature and subject to change when conditions change. As a matter of fact, we would have no objection to the prescription of an expiration date, pursuant to which the commission could review this matter again within a reasonable time."

Mr. Knudson asserted that "some method of special consideration" should be given Eastern District carriers, which, he admitted, have had larger increases in operating expenses than elsewhere and a less favorable position in terms of traffic volume. He also recommended relief in the gain-rate structure in the form of a ceiling for Pacific Northwest long distance shippers. As for livestock rates, he said that there are "compelling reasons" for the commission's holding down the percentage increases on such traffic below the general level of rate increases which may be authorized.

In addition to those already mentioned, the commission also heard argument on the proposed advances by representatives of numerous state commissions, traffic associations and shippers of various products. The latter, in general, also conceded that the railroads are entitled to an increase in rates, but contended that special consideration should be given their commodities so as not to disturb rate relationships. Counsel for shippers also warned the commission that any substantial increase in rates could lead to a diversion of traffic and act as a spur toward inflation.

Ice-Breaking Operations Will Keep Inland Waterways Open

The Army's Corps of Engineers has taken steps "to assure ice-free barge traffic along the Illinois river throughout the winter and an extension of the season for water-borne traffic on the Upper Mississippi to facilitate the movement of fuel and other needed commodities in the Great Lakes and Midwest areas," said a December 6 statement from the War Department. The estimated cost of the planned ice-breaking operations is \$250,000, according to Lieutenant General R. A. Wheeler, chief of engineers.

He explained that the Army will bear this expense and supervise the work, but the actual operations, employing ice-breaking towboats and ice plows, will be performed by the government-owned Inland Waterways Corporation, operator of the Federal Barge Lines, and the Coast Guard. General Wheeler has also directed that the locks in the Upper Mississippi remain in operation as long as the ice-breaking activi-

ties continue. He expects that the extended shipping season on that waterway and the all-winter operations on the Illinois "will alleviate possible shortages in rail freight facilities during the critical cold-weather months."

Lawrence Wilcox Elected by Air Brake Association

Lawrence Wilcox has assumed the duties of secretary and treasurer of the Air Brake Association, with headquarters at Room 827, 80 East Jackson boulevard, Chicago 4. Mr. Wilcox, who, until his retirement on December 1, was steam road representative, western district, of the Westinghouse Air Brake Company at Chicago, was born at Winona Lake, Ind., on October 15, 1882. He began his career in 1901 as a fireman in the employ of the



Lawrence Wilcox

Lake Shore & Michigan Southern (now part of the New York Central) and in 1905 became a locomotive engineer. He entered the service of Westinghouse Air Brake in March, 1911, as mechanical expert in Chicago. In 1923 he was placed in charge of the company's office at Columbus, Ohio. When that office was closed in 1933 he was transferred to the Chicago office as steam road representative of the western district.

A.R.E.A. Nominations

Nominations for the annual election of officers of the American Railway Engineering Association have been announced. In line with usual practice this election will be by letter ballot, with the ballots to be mailed to members about February 1. The nominations are as follows:

President, C. H. Mottier, vice-president and chief engineer, Illinois Central System, Chicago; vice-president, G. L. Sitton, assistant chief engineer, Southern System, Washington, D. C.; directors (three to be elected), R. L. Groover, chief engineer, Atlantic Coast Line, Wilmington, N. C.; F. J. Bishop, chief engineer, Akron, Canton & Youngstown, Akron, Ohio; C. G. Grove, chief engineer maintenance of way, Western

region, Pennsylvania, Chicago; R. J. Gamme, chief engineer, Texas & Pacific, Dallas, Tex.; Clark Hungerford, president, St. Louis-San Francisco, St. Louis, Mo.; W. J. Hedley, assistant chief engineer, Wabash, St. Louis, Mo.; E. C. Vandenberg, chief engineer, Chicago & North Western, Chicago; P. O. Ferris, chief engineer, Delaware & Hudson, Albany, N. Y.; and G. W. Miller, district engineer, Canadian Pacific, Toronto, Ont.

For members of the nominating committee (five to be elected): E. J. Brown, engineer of track, Burlington Lines, Chicago; I. H. Schram, chief engineer, Erie, Cleveland, Ohio; C. J. Henry, assistant chief engineer, Pennsylvania, Philadelphia, Pa.; E. E. Mayo, chief engineer, Southern Pacific, San Francisco, Cal.; W. T. Alexander, assistant chief engineer, Texas & Pacific, Dallas, Tex.; R. W. Marye, general manager, Charlestown & Western Carolina, Augusta, Ga.; W. L. Young, principal assistant engineer, Norfolk & Western, Roanoke, Va.; E. S. Birkenwald, engineer bridges, Southern, Cincinnati, Ohio; M. H. Dick, engineering editor, *Railway Age*, Chicago; and C. S. Burt, manager forest products, Illinois Central, Memphis, Tenn.

In addition to the above names to be balloted on, F. S. Schwinn, assistant chief engineer, Missouri Pacific Lines, Houston, Tex., will automatically be advanced from junior vice-president to senior vice-president.

B. & O. Uses Own Holly Sprigs to Brighten Yule Travel

A 90-ft. holly tree standing beside the right-of-way on the Baltimore & Ohio's main line between Washington, D. C., and Philadelphia, Pa., near Jackson, Md., provides sprigs to be worn by all the road's passenger train crews and ticket sellers during Christmas week. More than 3,000 employees will wear the holly sprigs and the story of their origin will be available to the public on station posters, ticket enclosures and dining car menus. The tree is believed to be 100 years old and said to be the largest in the east. The acre plot on which it stands was purchased by the B. & O. in 1930 and a steel frame was erected around it for protection.

Diesel Makers' Group Elects

Gordon Lefebvre, president of the Cooper-Bessemer Corporation, was elected president of the Diesel Engine Manufacturers Association at the annual meeting in Chicago on December 10. Otto H. Fischer, president of the Union Diesel Engine Company, and L. W. Metzger, vice-president of the Baldwin Locomotive Works, were elected vice-presidents of the association. Robert H. Morse, Jr., vice-president and general sales manager of Fairbanks, Morse & Co., was reelected treasurer and Harvey T. Hill was reappointed executive director.

Elected to serve two years on the board of directors were George W. Codrington, vice-president of the General Motors Corporation and general manager of the Cleveland (Ohio) Diesel engine division; E. J. Schwanhauser, vice-president of the Worthington Pump & Machinery Corp.; A. W. McKinney, vice-president of the National Supply Company; and Messrs.

Morse and Metzger. The following were elected to serve one year on the board: C. S. Herbert, executive vice-president, Enterprise Engine & Foundry Co.; W. E. Corrigan, vice-president, American Locomotive Company; Robert E. Friend, president of the Nordberg Manufacturing Company; and Messrs. Lefebvre and Fischer.

Emergency Board Created

President Truman on December 16 issued an Executive Order creating an emergency board to investigate a dispute between the Georgia and certain of its employees who are represented by the Brotherhood of Locomotive Firemen and Enginemen. The dispute involves working rules and seniority arrangements.

Extend Limit on Round-Trips Between School and Home

A railroad travel plan whereby students and faculty members can purchase special round-trip tickets good beyond the regular three-month return limitation period will go into effect throughout the nation on December 25. Hugh W. Siddall, chairman of the Railroad Passenger Inter-territorial Committee, announced in Chicago on December 6. The "College Special" ticket permits the purchaser to travel back to school following the Christmas holidays and to return home either at the spring vacation period or at the close of the school term.

It was pointed out that while no actual reduction is made in the price of the round-trip ticket, the passenger effects a substantial saving by not having to purchase one-way tickets because of the three-month limitation on round-trip tickets. Students and faculty members can purchase tickets at their "home stations" between December 25 and January 16, the return trip of which will be honored either between February 15 and April 19 or between May 15 and June 30. Tickets will also be sold from February 18 to March 31, for return between May 15 and June 30. The plan, it was stated, will also be available upon the resumption of school in the fall of 1948 and each year thereafter.

The special tickets may be purchased at "home stations" anywhere in the United States and Canada to other points in the U. S., and to, from or through Canada. The plan, however, does not cover round-trips between stations in Canada or the shorter distances where there are no regular round-trip fares in effect. Travelers taking advantage of the plan will be permitted 10 days in which to reach their destinations, thereby allowing for stopovers enroute.

Approves Boost in First and Second Class Express Rates

Acting in three weeks and without hearing, the Interstate Commerce Commission has partially granted the Railway Express Agency's recent petition for authority to make a further increase of 10 per cent in its rates and charges. The petition was dated November 25, and the commission's favorable order was dated December 16.

The order authorizes R.E.A. to file, on

the statutory 30-days notice, short-form tariffs publishing a 10 per cent increase in first-class rates and to maintain second-class rates at 75 per cent of the first-class rates as thus increased. As noted in the *Railway Age* of December 6, page 73, the R.E.A. petition also seeks to increase various other charges by 10 per cent, but those proposals will be the subject of investigation and hearing "at such times and places to be fixed by the commission," the December 16 order said. It also said that, in authorizing publication of the higher first and second class rates, "the commission makes no finding as to the reasonableness of, nor approves, the proposed increased rates which are subject to protest and possible suspension."

The order was entered in the Ex Parte 163 proceeding wherein two previous increases have been granted R.E.A. during the past 12 months—one effective December 13, 1946, and the other on October 25. These were calculated to yield some \$120,000,000 in additional annual revenue, but the present petition asserted a need for still more to offset increased expenses occurring since the close of the hearing which was the basis of the October 25 advance. Among the increased costs is the 15½-cents-per-hour wage increase granted to R.E.A. employees after the arbitration board had awarded that amount to non-operating railroad employees. This wage adjustment, which will cost \$31,400,000 a year, was mentioned in the commission's order. The R.E.A. petition estimates that all the increases it proposes would yield additional annual revenues of approximately \$42,500,000.

Senate Confirms General Gray for Veterans' Post

The Senate on December 15 confirmed President Truman's appointment of Major General Carl R. Gray, Jr., to the position of administrator of veterans' affairs. General Gray, who succeeds General Omar N. Bradley, will come to his government position from the Chicago & North Western where he has been vice-president in charge of public relations since May 1, 1946. His photograph along with an outline of his career appeared in the *Railway Age* of November 29, page 54.

Chicago Roads Ask 30 Per Cent Hike in Commutation Fares

The Illinois Central and the Chicago & North Western—two of the 12 railroads seeking higher commutation fares in the Chicago area—have asked the Illinois Commerce Commission for authority to increase such fares by 30 per cent. At hearings which began before the commission in Chicago on December 8, the two named railroads amended their previous requests for a 25 per cent raise in commutation fares, citing recent wage increases and other factors contributing to higher operating costs. The 10 other roads involved—all of which have separate petitions before the commission—had not asked for the additional five per cent raise as this issue went to press.

As reported in *Railway Age* of July 5, the Chicago roads initially petitioned the commission for a 20 per cent increase in

suburban fares. On September 22 Wayne A. Johnston, president of the I. C., testified before the commission that a 25 per cent raise was needed because of wage increases granted subsequent to the filing of the original petition. The other railroads indicated that they would go along with the I. C. request.

The 12 railroads were granted a temporary 10 per cent increase in commutation fares effective on November 1, to remain in effect until the commission has arrived at its decision concerning the request for a permanent raise in fares (see *Railway Age* of October 25, page 66).

Three Roads Fined

The Interstate Commerce Commission has been advised that a fine of \$400 was imposed against the Northern Pacific in the federal district court at Fargo, N. D., on December 8, following the road's plea of guilty to an information in four counts charging it with having violated the commission's regulations governing the transportation of explosives. The information charged that the carrier improperly placed freight cars placarded "explosives" and loaded tank cars placarded "dangerous" in through freight trains.

The commission also has been informed that a penalty of \$100 was imposed against the Great Northern, which pleaded guilty in the same court to an information in one count charging it with having improperly placed a car placarded "explosives" in a through freight train.

Another road, the Chicago, Milwaukee, St. Paul & Pacific, was fined \$1,000 in the federal district court at Milwaukee, Wisc., the commission also has been advised. According to Secretary Bartel's notice, the road entered a plea of guilty to a criminal information in 10 counts which charged the carrier with violating section 3(2) of the Interstate Commerce Act by having unlawfully extended credit with respect to the payment of freight charges on certain shipments of coal delivered by it in Milwaukee.

Revitalized Policy—Correction

The article in the December 13 issue of *Railway Age* entitled "A Plan to Revitalize the National Transportation Policy," by Anthony G. Allison, vice-president of the Transportation Association of America, was based upon an address by Mr. Allison at a meeting in Pittsburgh, Pa., on November 24 of Interstate Commerce Commission practitioners, but a footnote to that effect inadvertently was omitted from the article.

N. P. Opens 16.5-Mile Cut-off

Service over the Northern Pacific's 16½-mi. New Salem cut-off in western North Dakota—the company's most extensive line relocation in 30 years, completed at a cost of \$2,750,000—was inaugurated on December 3. The project was begun in April, 1946, and involved the wide use of heavy, modern grading equipment in handling nearly four million yards of earth. The grading was completed in October, 1946, but completion of the project was delayed by the inability to obtain steel for construction of five bridges necessary to span four creeks and a state highway.

The railroad's old line runs south from New Salem to Almont, thence northwest to Glenullen. The new line originates at New Salem, 28 mi. west of Mandan, and runs straight west, reducing the distance by 9.3 mi. and the grade from one per cent to 0.45 per cent. (A detailed description of this project appeared in *Railway Age* of July 26, page 66.)

New Motor Bus System Approved by the I.C.C.

(Continued from page 61)

originally opposed the applications, had withdrawn its protest, "that carrier on December 2, 1947, filed petition for further hearing in which it reiterates its opposition to the transaction." On this matter it was Mr. Miller's opinion that American's petition should have been granted or, in the alternative, a proposed report should have been served.

American's Objections—American's December 2 petition was denied by Division 4 in an order made public along with the report. The denial order stated that American was represented by counsel at the original hearing at Dallas, Tex., last April; and that an adjournment was granted at its request and upon its representation that it would then cross-examine the applicants' witnesses and present witnesses in support of its protest. When the adjourned hearing was held in Washington, D. C., in September, the order continued, counsel for American appeared and withdrew the protest. The commission determined that the December 2 petition "does not afford grounds for further hearing and consequent delay of the decision."

Meanwhile the majority report had noted that Trail, Continental and Dixie are members of the National Trailways System, and that one reason for their joining in the formation of Transcontinental was the fear of each that any of the others might become part of either the Greyhound or American systems. In that connection, the report continued, the applicants cited the fact that Trailways is "purely a voluntary organization," and present interchange arrangements, while satisfactory, could be terminated by any of the parties upon relatively short notice.

Interchange arrangements have also been maintained with American, and of that situation the division said that its findings "contemplate that Transcontinental shall maintain and keep open these presently existing routes and channels of trade by existing junctions in so far as such matters are within its control." It refused, however, to impose labor-protection provisions, which were sought by the Labor Bureau of Middle West, the Amalgamated Association of Street Electric Railway and Motor Coach Employees of America and the Brotherhood of Railway Clerks.

U. S. Supreme Court Refuses to Review Negro-Fireman Case

The United States Supreme Court on December 15 refused to review and thus left in effect a decision of the Circuit Court of Appeals for the Fourth Circuit which had sustained a grant of injunctive relief and an award of damages, won in the fed-

eral district court at Norfolk, Va., by a negro fireman employed by the Norfolk Southern in an action against the so-called 1941 agreement between the Brotherhood of Locomotive Firemen and Enginemen and southeastern roads. The agreement is that which undertakes to limit the number of "non-promotable" (negro) firemen employed and to govern the assignments of "non-promotable" men.

It was assailed in the present case, as it has been in other court proceedings; as discriminatory because it allegedly deprives the negroes of preferred firemen positions to which their seniority on the firemen's roster would otherwise entitle them. In December, 1944, the Supreme Court decided the issue in favor of a negro complainant, the case being *Steel v. Louisville & Nashville*, 323 U. S. 192, 202-203 (see *Railway Age* of December 23, 1944, page 970).

At that time the court also had before it the present case—*Tunstall v. B. of L. F. & E.*, which it sent back to the district court where the complaint had been dismissed for want of jurisdiction. The district court then granted the plaintiff (Tom Tunstall) the injunctive relief he sought; and the damage claim went to the jury which awarded \$1,000—approximately the difference between the wages received by Tunstall and the wages to which he would have been entitled at the rate prevailing on the run which, as the circuit court put it, "had been improperly taken from him."

It was these district-court determinations that the circuit court upheld in the decision which the Supreme Court refused to review. As reported in recent issues of *Railway Age*, another similar case is on its way through the courts; it is the complaint of a group of negro firemen employed by the Atlantic Coast Line and Southern, which is pending in the United States District Court for the District of Columbia.

November Operating Revenues 13 Per Cent Above 1946

From preliminary reports of 83 Class I railroads, representing 81.6 per cent of total operating revenues, the Association of American Railroads has estimated that the November gross amounted to \$607,274,434, an increase of 13 per cent above the \$537,339,330 reported for the same 1946 month. Estimated November freight revenues were \$501,831,603, compared with \$425,164,192, an increase of 18 per cent, while estimated passenger revenues were \$61,226,783, compared with \$70,809,323, a decrease of 13.5 per cent. The estimate for other revenues was \$44,216,048, compared with \$41,365,815, an increase of 6.9 per cent.

"Chief" and "Grand Canyon" on Faster Schedules

The running times of two Atchison, Topeka & Santa Fe trains—the "Chief" and the "Grand Canyon," operating between Chicago and Los Angeles, Cal.—have been reduced in schedules placed in effect December 14. On its westbound journey, the "Chief" is 1 hr. and 29 min. faster, departing from Chicago at 1:30 p.m. instead of 12:01 p.m. and arriving at Los Angeles, as previously, at 8:30 a.m. on the second day. The train departs eastbound from Los

Angeles at 12:30 p.m. and arrives in Chicago at 11:30 a.m. the second day, an hour earlier than heretofore.

The "Grand Canyon" now departs from Chicago at 12:01 p.m. instead of 12:15 p.m. and arrives in Los Angeles at 10:45 a.m. instead of 11:00 a.m., thereby cutting 29 minutes from its running time. The east-bound schedule of this train remains unchanged.

L. F. M. Co. Celebrates Its 75th Anniversary

The Locomotive Finished Material Company, Atchison, Kan., this month is completing celebration of the 75th anniversary of its founding and has had an attractive 3½-in. round bronze medallion struck off in honor of the event.

The company originated in 1872 as the John Seaton Foundry to supply locomotive cylinder and other castings to railways in the Southwest, primarily the Atchison, Topeka & Santa Fe. In 1905, a machine shop was added and the Locomotive Finished Material Company was formed to manufacture finished materials such as pistons and valves, cylinder and valve bushings, rings, driving wheel centers, crossheads, etc., for distribution and use throughout the country.

Title to the foundry was acquired in 1924 and since that time the entire plant has been operated under the present name. The company does extensive business in both the railway and oil industries and during the recent world war made machine tools, cast

armor for M-4 tanks and maneuvering valves for naval ships. For Diesel locomotives the company manufactures and supplies a large number of both lightweight and standard cast-steel truck frames.

The medallion shows on one side an embossed view of the small original foundry in 1872 and below it the greatly enlarged plant of 1947. On the other side is an oil-field scene at the top, superimposed Diesel and steam-locomotive trains at the center and an inspection around the periphery and at the bottom.

Army Research Plans Include Transport Studies

Several transportation studies are included in the War Department Research and Development Program for the fiscal year ending June 30, 1949, according to an outline of the program which was recently made public. The rail-transport phase will involve studies of motive power, cars and special equipment.

One study already under way has been concerned with "a lightweight Diesel engine specifically designed for long life between overhauls with a minimum of maintenance." Further study of this "basic power plant," as the War Department statement put it, will bring under investigation "a series of engines with suitable range of horsepowers adaptable to locomotive, crane, marine and general application."

Motive power under study includes a "50-ton, 0-4-4-0 Diesel-electric locomotive

suitable for both road and switching service on 56½-in. gage railroads in foreign theaters." This is expected to supersede present designs of locomotives ranging from 45 tons to 80 tons. Also under study is a 100-ton, 56½-in. gage, 2-8-2 steam locomotive "to be designed to foreign railroad limitations, to supplement, if required, the Diesel-electric for theater-of-operations service."

After development of the 50-ton Diesel-electric, projects of modified designs for locomotives of this type with 60-in., 63-in., and 66-in. gage trucks will be initiated, the statement also revealed. It explained further that a similar locomotive will likewise be developed for foreign service on narrow-gage track—39¾ in. and 42 in. Still another development will be a heavy Diesel-electric locomotive of approximately 127 tons, which is expected to embody the lightweight engine mentioned above. This will be for standard and wider gage tracks, and it would furnish power "for heavy mainline service on military railroads in foreign theaters."

Cars under development for service in foreign theaters on 56½-in. and wider gage include a series of 40-ton, 8-wheel, flat, gondola and box cars, a hospital unit car, and an 80-ton car for the transport of heavy combat tanks and other special units as well as general freight. The future program contemplates the development of improved designs of 4-wheel, 20-ton cars of standard and wider gages for foreign service; of 8-wheel, 30-ton cars of narrow gages of various types suitable for military service; of troop sleeping and kitchen cars of standard gage for domestic service; and of "special cars meeting specific requirements for foreign service."

As for special rail equipment, the War Department statement said that development work is continuing on locomotive and wrecking cranes of 56½-in. gage, suitable for foreign service; while roadway machines (inspection, maintenance and push cars) adapted for military service on foreign railroads "are in the preliminary development stage." Other studies in the rail transport program include those on (1) motive power components, including transmissions of various types; (2) car components, including trucks and brakes; (3) the application and tests of radio communication between locomotive and train crews and ground crew stations for improved dispatching and the control of yard movements; (4) studies and tests of Arctic operation of rail equipments; (5) "tropicalization" of components; and (6) the "air transportability" of rail equipment.

Efficiency More Vital Than Control of RRs—Tigrett

The efficiency of the railroads is the primary interest of the public and "it really doesn't make much difference to the public whether the railroads are controlled by bankers in New York or in Cleveland or elsewhere, or by the hundreds of thousands of stockholders who really own them," I. B. Tigrett, president of the Gulf, Mobile & Ohio, declared in an address at Kansas City, Mo., on December 10. Speaking before a luncheon meeting of the Trans-Missouri-Kansas Shippers Board and the Chamber of Commerce and Traffic Club of Kansas City, Mr. Tigrett added that the



general public cares little "whether or not a sheep or a hog may cross the continent in the same stock car in which it starts the trip, or whether or not those comparatively few passengers who ride in sleeping cars across the continent may be allowed to do so without transferring from one sleeping car to another."

Of fundamental import to the people who ride the trains, the speaker pointed out, is whether they are to be transported in safety and comfort at a reasonable fare. The shippers, he said, are vitally concerned with the expeditious handling of their shipments at a reasonable cost.

Later in his address, the G. M. & O. president referred to the large sums of money his road has spent for new equipment, adding, however, that "if we were allowed to substitute sound judgment for political expediency we could buy additional equipment or provide additional improvements." Illustrating his point, Mr. Tigrett told of the railroad's unsuccessful efforts to secure permission to eliminate a passenger train which is costing the road one dollar per mile, while taking in only six cents per mile for the transportation of passengers.

In this connection, he stated: "What economic or moral right has a regulatory body, elected either directly or indirectly by the people, to say that a corporation must maintain useless jobs instead of useful jobs; to give preference to a small faction to the detriment of the majority; and to force the dissipation of a private investment which should be conserved not merely for the sake of the investor but also for the general public welfare?"

Mr. Tigrett declared that three unrelated announcements from Washington this summer "pictured with simple perfection the unequal and unfair position of the nation's railways in the financial framework of public transportation." First, on June 17, the Interstate Commerce Commission ordered the railroads to install new signaling equipment in certain high-speed territories, which would cost over \$157,000,000 of the railroads' money. Second, on July 2, a special board on air crashes, appointed by President Truman, asked Congress to appropriate \$13,428,000 of the taxpayers' money for the installation of new safety devices on planes and landing fields. Third, on July 14, a House commerce subcommittee declared that commercial aircraft should be equipped with more adequate radar and recommended that the federal government, out of the taxpayers' money, bear three-fourths of the expense.

In conclusion, Mr. Tigrett asserted that the "railroads should not be throttled to the extent that they cannot adequately keep pace with the transportation needs of the country. That strikes at the welfare of all citizens. Speaking from a righteous standpoint, the confiscation of any investment which has been made by citizens of the United States in developing these railroads is wrong."

Dismisses Negro's Complaint Against Seaboard

Division 3 of the Interstate Commerce Commission has dismissed a complaint filed against the Seaboard Air Line by a negro, Charles E. Byrd, who sought reparations in the amount of \$2,500 on the basis of

allegations that he was unduly prejudiced by reason of being refused a reservation for a lower berth in a Pullman car leaving Tampa, Fla., for New York on February 20, 1946. The division's action was based on findings that no undue prejudice had been shown and that S.A.L. instructions to its employees governing the making of reservations in Pullman cars are not unduly prejudicial to negroes.

In the latter connection, however, the report observed that, because the instructions are oral only, employees "at times are likely to fail to apply them strictly, with the consequence that undue prejudice may result." It added that "such instances should be guarded against by printing the instructions and distributing them to all employees charged with the sale of Pullman tickets or the making of reservations."

The report set out the instructions as follows: "If a negro purchases a ticket in person, or makes a reservation over the telephone and voluntarily discloses that he is colored, he will be furnished a bedroom, compartment or drawing room, if requested and available; but if he requests a berth, he will be furnished such space in a bedroom, compartment or drawing room, if it is available in any of them, at the charge for a similar berth in the open part of the car. If this is done, the door is left open and a curtain is hung across the opening. If such space is not available, the negro is assigned the requested berth in the open part of the car, provided it has not been reserved or sold. If accommodations are requested by telephone, the instructions are that the applicant is not to be asked whether he is white or colored, and that he is to be assigned the requested berth, if available."

The complainant, who was a chaplain in the Army at the time, first made a reservation by telephone for a lower on the Seaboard's "Silver Meteor" that was scheduled to leave Tampa February 19, 1946. On February 18, 1946, he called the Seaboard ticket office, canceled that reservation, and requested a similar one on the "Silver Meteor" which was due to leave Tampa on February 20. On that occasion, the complainant said, he was asked by the reservation clerk whether he was white or colored; and, when he replied that he was colored, he was told that "they had no reservation for me." He stated further that he next asked when he could get a reservation, and was told that he could not get one.

"I said 'Why?' She said 'I only work here,'" the complainant went on. "She said that it was the policy of the railroad not to give a Pullman accommodation to colored people on the line. She said she could let me have a coach reservation, seat reservation, or compartment, but the compartment I could get within three days."

The complainant did not call the matter to the attention of the Seaboard's passenger traffic officers, who first learned of it when the complaint was filed. The Seaboard conceded that "section 3 of the act would have been violated if the facts were as stated in the complaint; but it said that "if so, it was an isolated instance of the failure of an employee to obey the instructions." And it went on to contend that "the reasonable conclusion from the evidence is that complainant was denied a lower berth because none was available and not because he is a negro."

To the commission it was a "reasonable conclusion" that something was said during his telephone conversation with the reservation clerk to give the complainant the impression that he was refused a lower berth because he is a negro. At the same time, it found other evidence justifying the conclusion "that a lower berth was not available and that a white person under the same circumstances and conditions could not have obtained one." "Therefore," the report added, "it is not proved that complainant was unduly prejudiced. In any event, complainant has not established that he suffered any actual private damage. We have no jurisdiction to award punitive or exemplary damages."

In his "prayer for future relief," the complainant contended that the practice of assigning space in rooms to negroes, at the charge fixed for berths, before giving them berths in the open part of Pullman cars, while giving white passengers whatever space they specify, and only giving them space in rooms when they pay the higher charges for such accommodations, is "unduly prejudicial to negro passengers." Citing *Mitchell v. United States*, 313 U.S. 80, the commission rejected the prayer, with the assertion that "it is not unduly prejudicial to negro passengers to furnish them accommodations superior to those furnished white passengers at the same charge."

Reading Terminal Improvements to Cost Over \$1,000,000

A project involving the improvement of passenger facilities at the Reading Terminal, Philadelphia, Pa., was begun on December 15. It will cost more than \$1,000,000, according to R. W. Brown, president of the company.

The ticket office, now located on the street floor, will be relocated on the train floor together with other service facilities, such as Western Union and Bell Telephone offices and a baggage room. The present train concourse will be enclosed, heated and decorated in a modern style. Two moving stairways, flanked on either side by steps, will be provided at the easterly end of the building from Market street to the waiting room. Another moving stairway, with adjacent steps, will be placed at the location of the present stairs leading from 12th street to the train concourse. The moving steps will be equipped to run in either direction to accommodate the morning and evening rush hour movements of passenger traffic. They will be 4-ft. wide and each will have capacities for moving 8,000 persons an hour.

New train gates will be closed in with modern steel construction permitting the heating of the train concourse. A new baggage room for the handling of small baggage will be constructed at the easterly end of the concourse. At either end of the concourse new electric elevators will be provided for more efficient handling of baggage and express. The present baggage room at the lower level will be retained for the handling of trunks and other heavy baggage, with vehicular access from Commerce street. A new commissary building will be built at the northerly end of the train shed for the handling of dining car supplies. New sheathing will be applied to the roof of the trainshed, which has a width

of about 270 ft. and a length of over 500 ft. The sheathing involves the use of more than 400,000-ft. board measure of lumber which has been treated for fire resistance and against decay.

Three new electric elevators will replace the present hydraulic equipment serving the Reading's general offices in the building. The elevators, to be installed early next year, will have automatic push button controls and speeds of 500 ft. a minute, with a total capacity of 50 persons. Two will be installed at the present 12th street entrance and the present stairs from the sidewalk level will be removed to provide entrance into the elevators directly from the street level. The third office elevator will be placed at the easterly end of the building next to the two electrically-operated elevators in the Terminal Annex. These elevators also will be available for the use of passengers in wheel chairs and others unable to use the new moving stairs. The present shelter over the Market street sidewalk will be removed and a new marquee will be provided. New store fronts will be constructed along the Market street frontage. The handling of buses at the terminal will be discontinued and the space now used as a bus terminal, together with the Market street frontage vacated by the relocation of the ticket office, will be improved and leased for stores designed to provide a convenient shopping center for passengers.

Edward P. Simon Associates of Philadelphia has designed the changes and new facilities and the work will be carried out under the supervision of the Reading's engineering department. Contracts for the new moving steps and elevators have been awarded to the Westinghouse Electric Corporation. The general contract has been awarded to the George A. Fuller Company of Philadelphia and New York.

Three Unions Vote for Strike

The three recalcitrant transportation brotherhoods that declined on November 19 to accept a 15½ cent hourly wage increase settlement are reported to have computed a majority of 95 to 98 per cent of total ballots cast as electing to strike. It is not reported what percentage of the ballots circulated were actually cast. These three unions represent the engineers, firemen, and 7 per cent of the switchmen—a total of approximately 125,000 men. Federal mediators are continuing their conciliatory services at Chicago and no immediate termination thereof is in prospect.

Vaughan Sees Railroads Hobbled by Outmoded Economics

A call to war veterans employed by the Canadian National to dedicate themselves to the service of the public in the same way that prompted them to lay aside all other considerations during the war years was made by R. C. Vaughan, chairman and president, in a recent address in Toronto before more than 1,000 members of the Canadian National War Veterans Association. Mr. Vaughan was elected honorary president of the association.

"Progress can only be attained through service and the highest type of service is that which is dedicated to the public good," he said. "Never in the history of the railways has it been as necessary as now that there should be such an awareness within and without our industry. We have never

been so indispensable to our nation's welfare. Never have we had more obligations to meet. Never have we had a harder time to meet them. Economic forces beyond our control seem to be working constantly to our disadvantage and although management has used every precaution, applied ingenuity to the best of its ability, and has sought all means to win, the battle, so far, has been a losing one."

Elaborating on the problems of the Canadian railroad industry Mr. Vaughan said, "it is hobbled by economic skirts designed a quarter of a century ago while all other industries in the land have been liberated from controls and allowed to move freely along the road of the new economic progress. This year our gross operating income will rank among the highest in our history. It will exceed \$400,000,000. In spite of that huge gross figure, it will not be large enough to enable us to meet our fixed charges and we will wind up the year with a discouraging deficit. The fault for this lies not with management but with those economic forces over which we have no control and towards whose amelioration we have been unable to receive relief, although we have spared no effort to get it."

Railroads are badgered by difficulties in obtaining materials and supplies, apart from financial anxieties, Mr. Vaughan continued. This situation has caused a lack of locomotives, freight and passenger cars, as well as a delay in the reconditioning program. "We are anxious and willing that these improvements be made without delay," he said, "and we have backed our willingness with large orders, but there is a vast difference between placing an order and its delivery. . . . It is reasonable to presume that the public would not be demanding modernization of equipment if it did not intend to use it. Industry would not be pressing for more freight cars if there was any other form of transportation that it could employ as economically. Obviously, therefore, there is a general recognition of the fact that no form of transportation can do the job the railways have done as cheaply, as effectively and as quickly."

Freight Car Loadings

Revenue carloadings for the week ended December 13 totaled 854,159 cars, the Association of American Railroads announced on December 18. This was a decrease of 24,429 cars, or 2.8 per cent, under the previous week, an increase of 25,408 cars, or 3.1 per cent, over the corresponding week last year and an increase of 82,565 cars, or 10.7 per cent, above the comparable 1945 week.

Loadings of revenue freight for the week ended December 6 totaled 878,588 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings For the Week Ended Saturday, December 6			
District	1947	1946	1945
Eastern	159,785	144,970	150,455
Allegheny	180,600	138,774	162,395
Poconantas	73,388	24,085	54,132
Southern	144,695	126,741	121,826
Northwestern	102,681	99,000	92,553
Central Western	143,677	128,176	130,268
Southwestern	73,762	67,338	64,745
Total Western Districts	320,120	294,514	287,568
Total All Roads	878,588	729,084	776,376



Chief Billie Osceola and his wife, Seminole Indians, inspecting one of the stainless steel coaches on the Seaboard Air Line's Budd-built "Silver Star" just before the train began its inaugural trip from New York to Florida on December 12. (For schedules and consist of the train see *Railway Age* of November 22, page 76).

Commodities:			
Grain and grain products	49,439	55,007	58,863
Livestock	16,340	18,627	21,057
Coal	197,751	59,943	174,419
Forest products	14,820	8,144	13,004
Coke	49,833	48,893	30,285
Ore	22,478	14,108	11,665
Merchandise l.c.l.	117,754	128,868	117,250
Miscellaneous	410,173	395,494	349,833

December 6	878,588	729,084	776,376
November 29	792,339	660,911	803,774
November 22	902,672	806,593	716,556
November 15	878,337	917,124	800,534
November 8	910,160	913,345	838,218

Cumulative total,
49 weeks 42,217,703 39,048,375 39,952,704

In Canada.—Carloadings for the week ended December 6 totaled 81,860 cars as compared with 85,522 cars for the previous week and 78,711 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
December 6, 1947	81,860	37,212
December 7, 1946	78,711	36,386
Cumulative totals for Canada:		
December 6, 1947	3,737,576	1,809,500
December 7, 1946	3,485,754	1,695,562

Young Threatens to Take N.Y.C. Case to Congress

Robert R. Young, chairman of the Chesapeake & Ohio, served notice at a press conference last week that he intends to institute court action, and, if necessary, seek a congressional investigation of the Interstate Commerce Commission, unless that agency approves applications of himself and R. J. Bowman, president of the C. & O., for authority to hold directorships on the New York Central while still retaining their C. & O. positions.

Mr. Young's latest attack against the commission was inspired by a report proposed by C. E. Boles, assistant director of the commission's bureau of finance, who, as reported in *Railway Age* of December 13, page 64, recommended that the commission deny the applications filed by the two C. & O. officers. Mr. Boles also recommended that the commission deny the related petition of the C. & O. and Alleghany Corporation for release of the former's 400,000 shares of N. Y. C. stock from the requirement whereby it has been deposited with the Chase National Bank as independent voting trustee under the trusteeship created pursuant to the commission's June 5, 1945, order approving Alleghany's control of C. & O.

Mr. Young, whose first comment on the Boles report also appeared in last week's issue, made his latest charges December 12 in a press conference, where he asserted that no member of the commission attended the hearings because "they already have made up their minds."

Mr. Young also charged that the commission acted "unfairly" in appointing Mr. Boles to preside over the hearings. The same Mr. Boles, he said, had made an "unfair decision" with respect to the same two applicants joining the C. & O. board in the "Alleghany control case" in 1942, but that the commission subsequently reversed Mr. Boles' recommendations.

Mr. Young also alleged that the commission had approved, without hearing, other

applications in which the circumstances, according to Mr. Young, were substantially the same as those contained in the applications filed by Mr. Bowman and himself. In this connection, he said that Harry Hagerty, a Metropolitan Life officer, was permitted to serve as a director of both the New York, New Haven & Hartford and Erie.

"I resent, and I think the public ought to resent, two faced justice—one set of principles for the New York banking group and another set for Bob Bowman and me," Mr. Young continued. "That's unfair, un-American and ought to be exposed and castigated."

Mr. Young denied that he and Mr. Bow-

man had "taken great risks" with the C. & O.'s funds in railroad stock transactions, as asserted in the proposed report. Declaring that "not a penny" had been lost, he said that if there had been any loss, it could be attributed to the commission's "damned slowness" on rate increase proceedings.

In his threat to carry the case to Congress, should the commission fail to reverse the Boles report, Mr. Young observed that, because Congress has declared that railroad consolidations are in the public interest, "we'll leave it up to them." At the same time, he said that railroad consolidations are the only possible way to keep freight rates down.

Selected Income and Balance-Sheet Items of Class I Steam Railways

Compiled from 126 reports (Form IBS) representing 130 steam railways
(Switching and Terminal Companies Not Included)

		All Class I Railways			
		For the month of September		For the nine months of	
		1947	1946	1947	1946
Income Items					
1. Net railway operating income		\$47,968,461	\$67,538,702	\$557,964,152	\$367,186,520
2. Other income		14,158,696	14,278,016	143,196,480	136,552,496
3. Total income		62,127,157	81,816,718	701,160,632	503,739,016
4. Miscellaneous deductions from income		5,294,298	2,533,429	28,202,960	21,933,996
5. Income available for fixed charges		58,832,859	79,283,289	672,957,672	481,805,020
Fixed charges:					
6-01. Rent for leased roads and equipment		10,187,468	9,584,886	93,725,720	88,439,276
6-02. Interest deductions ¹		25,425,297	27,032,536	231,597,553	258,904,104
6-03. Other deductions		166,355	130,365	1,346,068	1,100,334
6-04. Total fixed charges		35,779,120	36,747,787	326,669,341	348,443,714
7. Income after fixed charges		23,053,739	42,535,502	346,288,331	133,361,306
8. Conflicting charges		2,906,783	2,496,005	31,152,818	28,099,459
9. Net income ²		20,146,956	40,039,497	315,135,513	105,261,847
10. Depreciation. (Way and structures and Equipment)		29,486,338	28,441,182	263,777,270	255,875,130
11. Amortization of defense projects		1,336,568	1,139,580	12,157,235	6,985,373
12. Federal income taxes		20,381,450	5,798,420	216,542,185	43,984,349
Dividend appropriations:					
On common stock		9,676,324	15,161,926	101,007,569	119,093,578
On preferred stock		1,189,238	399,184	29,118,538	30,672,995
Ratio of income to fixed charges (Item 5-6-04)		1.64	2.16	2.06	1.38

		All Class I Railways	
		Balance at end of September	
		1947	1946
Selected Asset and Liability Items			
17. Expenditures (gross) for additions and betterments—Road		\$201,433,118	\$160,101,585
18. Expenditures (gross) for additions and betterments—Equipment		361,690,081	213,046,377
19. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707)		570,003,713	580,014,741
20. Other unadjusted debits		197,330,601	173,858,660
21. Cash		974,325,463	1,036,524,197
22. Temporary cash investments		1,001,528,323	1,176,270,172
23. Special deposits		144,498,324	186,343,295
24. Loans and bills receivable		11,858,851	393,793
25. Traffic and car-service balances—Dr.		48,868,152	51,619,917
26. Net balance receivable from agents and conductors		133,517,963	121,638,545
27. Miscellaneous accounts receivable		280,402,849	316,665,057
28. Materials and supplies		741,955,445	640,554,410
29. Interest and dividends receivable		17,948,703	20,468,469
30. Accrued accounts receivable		161,378,215	167,044,191
31. Other current assets		36,257,424	31,615,239
32. Total current assets (items 21 to 31)		3,552,539,712	3,749,137,285
40. Funded debt maturing within 6 months ³		126,994,317	97,688,181
41. Loans and bills payable		5,640,000	13,922,683
42. Traffic and car-service balances—Cr.		81,422,651	112,927,676
43. Audited accounts and wages payable		497,087,361	480,684,430
44. Miscellaneous accounts payable		223,758,898	178,503,811
45. Interest matured unpaid		47,020,087	58,128,288
46. Dividends matured unpaid		16,688,251	15,592,377
47. Unmatured interest accrued		65,616,487	62,363,222
48. Unmatured dividends declared		13,884,587	8,369,356
49. Accrued accounts payable		171,046,575	188,848,049
50. Taxes accrued		632,049,411	576,745,346
51. Other current liabilities		93,624,593	111,495,211
52. Total current liabilities (items 41 to 51)		1,847,838,901	1,807,580,449
53. Analysis of taxes accrued:			
U. S. Government taxes		469,889,653	417,482,302
Other than U. S. Government taxes		162,159,758	159,263,044
54. Other unadjusted credits		346,328,136	389,025,865

¹ Represents accruals, including the amount in default.

² After a deduction of \$321,294, taken out of operating revenues to create reserves for land grant deductions in dispute.

³ Includes payments of principal of long-term debt (other than long-term debt in default) which will become due within six months after close of month of report.

⁴ Decrease, deficit, or other reverse item.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

Organizations

A meeting of the Indianapolis Car Inspection Association will be held at the Indianapolis (Ind.) Union Station at 7 p. m., January 5, 1948. A discussion of the new A. A. R. rules for 1948 will be held.

The 59th annual dinner of the Central Railway Club of Buffalo will be held at the Statler hotel, Buffalo, N. Y., on January 8, 1948, at 7 p. m.

The Metropolitan Traffic Association will hold its annual Ladies' Night Party on January 8, 1948, at the Pennsylvania hotel, New York.

A meeting of the Executive and Railroad Contact committees of the Southwest Shippers Advisory Board will be held at the Baker hotel, Dallas, Tex., on January 9, 1948.

The Canadian Railway Club will hold its annual meeting at the Mount Royal hotel, Montreal, on January 12, 1948, at 8 p. m.

The Car Foreman's Association of Chicago has scheduled a meeting for January 12, 1948, to be held at the LaSalle hotel, Chicago, at 8 p. m. The program will consist of a discussion of proposed changes in A. A. R. rules.

Equipment and Supplies

FREIGHT CARS

The GREAT NORTHERN has ordered 200 50-ton 40½-ft. gondola cars equipped with 16 drop doors, and 75 70-ton covered hopper cars from the American Car & Foundry Co.

The NEW YORK, CHICAGO & ST. LOUIS has ordered 400 70-ton drop-end gondola cars from the American Car & Foundry Co. An inquiry for this equipment was reported in the *Railway Age* of November 29.

The NORTHERN PACIFIC has ordered 250 70-ton ballast cars from the American Car & Foundry Co.

LOCOMOTIVES

The LONG ISLAND has ordered 33 Diesel-electric switching locomotives from the American Locomotive Company. Eighteen of the units are of 600-hp. each and are scheduled for delivery in May, 1949, and the other 15 units, of 1,000-hp. each, are scheduled to be delivered in February, 1949.

The NEW YORK CENTRAL SYSTEM this week placed orders for 111 Diesel-electric locomotives at an approximate cost of \$21,000,000. Frank S. Austin, manager, purchases and stores, said the orders were placed by the New York Central and two affiliates—the Pittsburgh & Lake Erie and the Indiana Harbor Belt—with the American Locomotive Company, the Electro-

Motive Division of the General Motors Corporation and Fairbanks, Morse & Co. Included in the order are 8 passenger locomotives, 17 freight locomotives, 15 transfer locomotives, 64 switching locomotives and 7 road-switching locomotives. Deliveries are scheduled to start next summer and extend into 1949.

The PENNSYLVANIA has ordered 125 Diesel-electric switching locomotives as follows: 4 600-hp. and 6 1,000-hp. units from the American Locomotive Company; 12 600-hp. and 15 1,000-hp. units from the Baldwin Locomotive Works; 18 600-hp. and 22 1,000-hp. units from the Electro-Motive Division of the General Motors Corporation; 23 1,000-hp. units from Fairbanks, Morse & Co.; and 25 380-hp. units from the General Electric Company.

SIGNALING

The FORT DODGE, DES MOINES & SOUTHERN has ordered equipment from the General Railway Signal Company for the installation of an automatic interlocking to replace a mechanical interlocking at Gowrie, Iowa. Six automatically-controlled Type SA searchlight signals will control a single-track triangle crossing of the Ft. D. D. M. & S. with the C. & N. W. and the M. & St. L. Type B plug-in relays will be used in this installation.

Construction

READING.—This road has awarded the following contracts, the estimated costs of which are shown in parentheses: to E. Clifford Durell & Son, Inc., Philadelphia, Pa., for repairing platforms and shelters at the Columbia avenue station in Philadelphia (\$35,000); and to Nelson B. Meadows, Inc., New York, for rearranging engine terminal facilities at Port Reading, N. J. (\$50,000).

Car Service

I. C. C. Service Order 104 (fifth revised), which provides for the substitution of refrigerator cars for box cars ordered for west-bound carload shipments, has been reissued as Sixth Revised Service Order No. 104. The revised version, effective December 15, applies only to PFE and SFRD refrigerator cars which may be substituted for box cars ordered for westbound transcontinental carload shipments destined to points in California, southern Idaho, Utah, Nevada, or Arizona and for westbound carload shipments originating in Utah and destined to points in Nevada or California. Provisions permitting reefer loading from the East and South to the Middle West and Northwest have been eliminated.

I. C. C. Service Order No. 434, which restricts free time on box cars held for unloading at ports to a maximum of 7 days, has been reissued as Revised Service Order No. 434. The revision, effective December 31, will limit the application of the order to Pacific coast ports. The present order applies to all ports, but railroads serv-

ing Atlantic and Gulf of Mexico ports have changed their tariffs to make the published free-time allowances the same or less than those set out in the order.

I. C. C. Service Order No. 775, which maintains super-demurrage charges on all types of freight cars, has been modified by Amendment No. 2. The amendment, effective December 12, exempts from the order freight cars which are not suitable for interchange when such cars are used in intra-plant or inter-plant service.

I. C. C. Service Order No. 798, relating to demurrage charges on privately-owned tank cars, was issued December 3, and on December 12 it was reissued, in the interest of clarification, as Revised Service Order No. 798. The order, effective from December 20 until March 1, 1948, unless otherwise modified, substitutes new wording for Paragraph 4(a), Section B, Rule 1, of Demurrage Tariff 4-Y. The effect of the change is to make demurrage rules apply on private tank cars held on private tracks for unloading, reconsignment, diversion or reshipment, with the exception of TP or TPI cars under load with certain specified commodities. The term "private tank car" is defined as including cars owned or controlled by national, state and municipal governments.

I. C. C. Service Order No. 82, which requires railroads to make joint use of terminals within the Louisville (Ky.) switching district to expedite the movement of cars to and from the Bourbon Stock Yards, has been modified by Amendment No. 5, which sets back the expiration date from December 31 to June 9, 1948.

I. C. C. Service Order No. 135, which maintains increased demurrage charges on carload export traffic held at Mexican border points, has been modified by Amendment No. 6 which sets back the expiration date from December 31 to October 1, 1948.

I. C. C. Service Order No. 624, which maintains the permit system for shipments of export grain through North Atlantic ports, has been modified by Amendment No. 9, which sets back the expiration date from December 31 to March 31, 1948.

I. C. C. Service Order No. 684, which maintains restrictions on lighterage services in New York harbor, has been modified by Amendment No. 3, which sets back the expiration date from December 31 to June 30, 1948.

I. C. C. Service Order No. 689 (revised), which requires the movement of empty refrigerator cars through Chicago via the Belt and Indiana Harbor Belt without regard to record rights, has been modified by Amendment No. 2, which sets back the expiration date from December 31 to April 5, 1948.

Supply Trade

Louis J. Baudis, formerly assistant to the vice-president in charge of manufacturing of the Bullard Company, has been appointed chief engineer of the machine tool plant at Bridgeport, Conn. The appointments of Robert W. Waring as assistant chief engineer and Joseph C. Olson

as head of the service and demonstration department, also were announced.

The **Gar Wood Industries, Inc.**, with headquarters at Wayne, Mich., has announced a number of personnel changes. **E. B. Hill** has been appointed general sales manager and **R. F. Whitworth** becomes general service manager. Four domestic regional sales offices have been created under Mr. Hill, with the following managers: **Ross Miller**, San Francisco, Cal. (Western Region); **A. C. Berg**, Wayne (Central region); **W. G. Barrett**, Boston, Mass. (Northeast region); and **H. C. Hatch**, Washington, D. C. (Southeast region). **J. D. Towne** and **W. S. Blakeslee** have been appointed division manager and sales manager respectively of the Wayne division.

C. W. Pendock, president of the **Le Roi Company**, at Milwaukee, Wis., resigned from that position recently and was subsequently elected chairman of the firm's board of directors. Succeeding Mr. Pendock as president is **E. A. Longenecker**, former president of the **Lauson Division** of the **Hart-Carter Company**.

OBITUARY

Harold G. Warr, vice-president in charge of engineering of the **P. & M. Company**, at Chicago, whose death on December 10 was reported in *Railway Age* of December 13, was born in Chicago in March, 1883, and studied engineering at **Lewis Institute**. Mr. Warr joined the **P. & M. Company** in 1913, and was advanced to company engineer in 1918. He was promoted to assistant general manager in 1921 and to



Harold G. Warr

chief engineer in 1930. Mr. Warr, who had been vice-president in charge of engineering of the firm since 1943, was also the inventor of a number of railway track appliances.

Financial

ALABAMA GREAT SOUTHERN.—Changed Dividend.—This road has declared dividends of \$3 a share on the 6 per cent preferred and ordinary stocks, both payable on December 24 to stockholders of record on

December 4. Previous payments on each of the issues were \$3.50 each on June 26.

CENTRAL OF VERMONT.—New Director.—**Calixa N. Moisan**, president and general manager of the **Standard Paper Box Company**, has been elected a member of this road's board of directors.

CHICAGO & NORTH WESTERN.—Changed Dividend.—This road has declared a dividend of 50 cents a share on the common stock, payable on December 31 to stockholders of record on December 12. The previous payment was \$1 a share on December 31, 1946.

DENVER & RIO GRANDE WESTERN.—Reorganization.—Division 4 of the Interstate Commerce Commission has fixed maximum limits of final allowances for services and expenses of parties in interest and their counsel during the period, generally, from July 1, 1943, to "about July 9" in connection with the reorganization proceedings of this road under section 77 of the Bankruptcy Act. The commission allowed \$474,862, plus a lump-sum maximum of \$1,500 for future expenses incurred by any of the parties, on claims amounting to \$545,035. The latter did not include compensation for the debtor's counsel, **F. C. Nicodemus, Jr.**, and **W. V. Hodges**, whose submission specified expenses of \$8,207 and asked "allowances of fair and reasonable compensation." The commission approved the expense claim and allowed \$35,000 for compensation—a total of 43,207.

The commission also approved \$27,710, on a claim of \$32,710, for the **City Bank Farmers Trust Company**, trustee under the **D. & R. G. W.'s** general mortgage, while that trustee's counsel, were allowed a total of \$60,458—\$40,158 going to **Mitchell, Capron, Marsh, Angulo & Cooney** on a claim for \$65,168, and \$20,300 to **Dines, Dines & Holme** on a claim for \$23,154. Among the other larger allowances fixed were the following: **Sidley, Austin, Burgess & Harper**, counsel for the reorganization managers, \$99,728, on a claim of \$100,028; **Hunt, Williams, Anderson, Gay & Moore**, counsel for an insurance group committee which represented owners of various classes of bonds, \$69,631, on a claim of \$38,299; and the **Guaranty Trust Company of New York**, trustee under the **D. & R. G. W.'s** first consolidated mortgage, \$25,543, on a claim of \$42,543.

DENVER & RIO GRANDE WESTERN-MISSOURI PACIFIC.—Trackage Rights.—Division 4 of the Interstate Commerce Commission has approved a new agreement between these two roads under which each will continue to use certain tracks and terminal facilities of the other in **Pueblo, Colo.** The agreement, dated January 10 and effective for one year as of July 1, 1946, covers approximately 56 miles of **D. & R. G. W.** tracks and 13 miles of **M. P.** trackage. One of the principal changes under the new agreement, which was approved subject to the usual employee-protection conditions, is a reduction in rental rate as between the two roads.

GULF, MOBILE & OHIO.—Control of Lessors.—Division 4 of the Interstate Commerce Commission has authorized this road to acquire, through stock ownership, control of the **Joliet & Chicago** and further

control of the **Louisiana & Missouri River**, both **G. M. & O.** lessors. The report also authorizes the **G. M. & O.** to issue \$2,736,000 of its first and refunding mortgage 4 per cent bonds, series **B**, which would be exchanged for **J. & C.** capital stock and 7 per cent guaranteed preferred stock of the **L. & M. R.** The **Baltimore & Ohio** is the largest holder of the stocks involved, the **G. M. & O.** having taken over the leased lines in connection with its acquisition of the **Alton**, former subsidiary of the **B. & O.** It is proposed to exchange \$150 of the bonds for each share of the stocks, both of which now receive 7 per cent dividends in the form of rentals. The exchange plan is designed to simplify the **G. M. & O.** corporate structure, and to reduce income taxes and effect other savings to the extent of a net annual gain of about \$51,229. The bonds, dated July 1, 1940, would mature July 1, 1975. They would be redeemable at prices ranging from 105 on or before July 1, 1949, to par after July 1, 1973. For sinking-fund purposes they would be redeemable at par. Although it noted that no employees would be adversely affected, the commission followed its now-established procedure and imposed the usual employee-protection conditions.

INTERNATIONAL - GREAT NORTHERN.—Equipment Trust Certificates.—This road has applied to the Interstate Commerce Commission for authority to assume liability for \$2,496,000 of Series **AA** equipment trust certificates, the proceeds of which will be applied toward the purchase of the following equipment:

Description and Builder	Estimated Unit Price
4 4,500-hp. Diesel-electric freight locomotives (Electro-Motive Division, General Motors Corporation)	\$437,484
6 sleeping cars (Pullman-Standard Car Manufacturing Co.)	120,834
3 mail and baggage cars (American Car & Foundry Co.)	79,620
2 dormitory coaches (A. C. & F.)	79,485
2 divided coaches (A. C. & F.)	82,586
1 lounge-grill coach (A. C. & F.)	87,124
2 diner-lounge cars (A. C. & F.)	103,175

The certificates will be dated December 15 and sold on the basis of competitive bidding.

MISSOURI PACIFIC.—Equipment Trust Certificates.—This road has applied to the Interstate Commerce Commission for authority to assume liability for \$5,248,000 of Series **JJ** equipment trust certificates, the proceeds of which will be applied toward the purchase of the following equipment:

Description and Builder	Estimated Unit Price
3 1,000-hp. Diesel-electric switching locomotives (Baldwin Locomotive Works)	\$ 96,228
10 4,500-hp. Diesel-electric freight locomotives (American Locomotive Company)	437,045
200 70-ton all-steel hopper cars (American Car & Foundry Co.)	3,809
3 mail and baggage cars (A. C. & F.)	79,620
1 baggage dormitory car (A. C. & F.)	75,262
2 dormitory coaches (A. C. & F.)	79,485
5 divided coaches (A. C. & F.)	82,586
4 lounge-grill coaches (A. C. & F.)	87,124
1 dining car (A. C. & F.)	111,466
3 diner-lounge cars (A. C. & F.)	103,175
1 undivided coach (A. C. & F.)	81,411

The certificates will be dated December 15 and sold on the basis of competitive bidding.

MISSOURI-KANSAS-TEXAS.—Tax Arrears.—Division 4 of the Interstate Commerce Commission has authorized this road

to procure the authentication and delivery of not exceeding \$10,000,000 of Series F prior-lien mortgage 4 per cent bonds, and to pledge and repledge all or any part of those bonds from time to time with the collector of internal revenue at St. Louis, Mo., as collateral security for the payment of deferred installments of federal income and excess profits taxes amounting to \$2,950,000. The taxes, to be paid in five semi-annual installments beginning April 6, 1948, cover deficiencies for the years 1942, 1943 and 1944. As reported in *Railway Age* of November 29, page 64, R. J. Morfa, chairman of the road, said that the arrangement would "enable the railroad to meet this unexpected debt to the U. S. Treasury without reducing its working capital below current requirements."

NEW YORK CENTRAL.—Acquisition.—Adopting the recommendations of Examiner R. R. Molster's proposed report which was noted in the *Railway Age* of November 8, page 66, Division 4 of the Interstate Commerce Commission has authorized this road to acquire, through stock ownership, control of the Niagara Junction, which serves the Niagara Falls, N. Y., industrial area. At the same time, the commission authorized the Erie and Lehigh Valley to be included in the transaction through the sale by the N. Y. C. of 25 per cent of junction stock to each of those carriers, a plan which had originally met the objection of all three roads concerned. The transaction was approved by the commission subject to the usual employee-protection conditions.

The commission found that it would be in the public interest for control of the Junction to pass from utility to carrier auspices, the road formerly having been owned by the Niagara Falls Power Company. The latter and the N. Y. C. reached an agreement in November, 1946, whereby the railroad would acquire, subject to commission approval, all 10,000 shares of Junction stock for \$1,000,000. The N. Y. C. then offered 20 per cent of the stock to the Erie and a like amount to the L. V., with the understanding that the Junction's operation would be controlled by the former, and that established routes and channels of trade, including rates and divisions, would not be disturbed. The Erie and L. V., however, rejected the offer, each stating that it desired a one-third interest. The N. Y. C., meanwhile, held that the stock should be divided approximately in proportion to the three roads' interchange with the Junction of which the N. Y. C. performs about 77 per cent, including 52 per cent for itself, 22 per cent for the L. V. and 3 per cent for the Canadian National. The remainder of the interchange is with the Erie, which performs it for itself.

The division said that the division of the Junction's stock on the 50-25-25 per cent basis appears to be the only practicable means of preventing unfair advantages accruing to any of the carriers concerned. It said that although it has been advised by the N. Y. C., Erie and L. V. that the 50-25-25 per cent stock division is not in accordance with the previous contentions of those carriers, they nevertheless have concluded to accept that division as a solution to the problem. "It is therefore to be expected that they will cooperate in promptly accomplishing the joint control herein con-

templated," the commission noted in granting its authorization on that basis.

The commission also held that it was in the public interest that carrier control of the Junction should be vested so as to insure continued neutrality of its operation and equality of opportunity to all connecting roads to solicit and obtain business. With division of the Junction's stock equally among the three carriers, it said, opportunity would exist for the L. V. and Erie to unite in dominating the management of the switching road. "Such domination by two of this carrier's connections would be no more desirable in the public interest than sole control or domination of the company by the third," it continued. "As opposed to the interest of the applicant, the interests of the Erie and the Lehigh Valley concur in the matter of traffic originated on the Niagara Junction's tracks, and it would be natural for them to work together."

NEW YORK CENTRAL.—Equipment Trust Certificates.—This road has applied to the Interstate Commerce Commission for authority to assume liability for \$12,800,000 of equipment trust certificates, the proceeds of which will be applied toward the purchase of the following equipment, estimated to cost \$17,985,500:

Description and Builder	Estimated Unit Price
9 1,000-hp. Diesel-electric road switching locomotives (American Locomotive Company)	\$120,000
2 1,500-hp. Diesel-electric road switching locomotives (A.L.C.)	150,000
2 1,500-hp. Diesel-electric road switching locomotives (Baldwin Locomotive Works)	150,000
6 2,000-hp. A unit Diesel-electric road passenger locomotives (Electro-Motive Division, General Motors Corporation)	217,000
6 2,000-hp. B unit Diesel-electric road passenger locomotives (E. M. D., G. M. C.)	200,000
10 1,500-hp. A unit Diesel-electric road freight locomotives (A.L.C.)	165,000
5 1,500-hp. B unit Diesel-electric road freight locomotives (A.L.C.)	147,000
4 1,500-hp. A unit Diesel-electric road freight locomotives (Baldwin)	165,000
2 1,500-hp. B unit Diesel-electric road freight locomotives (Baldwin)	147,000
12 1,500-hp. A unit Diesel-electric road freight locomotives (E.M.D., G.M.C.)	165,000
6 1,500-hp. B unit Diesel-electric road freight locomotives (E.M.D., G.M.C.)	147,000
1,000 55-ton steel box cars (American Car & Foundry Co.)	3,800
1,000 55-ton steel box cars (Pullman-Standard Car Manufacturing Co.)	3,800

The certificates will be dated January 15, 1948, and will be sold on the basis of competitive bidding. The applicant also informed the commission that it has placed or is about to place orders for additional equipment estimated to cost \$46,000,000.

SEABOARD AIR LINE.—Securities.—Division 4 of the Interstate Commerce Commission has further modified its supplements order of June 28, 1946, in the Finance Docket No. 14500 proceeding so as to extend to January 1, 1949, the time within which this company may sell securities pursuant to its reorganization plan. The sale would provide cash for settlements with holders of old Seaboard securities which are not deposited for exchange under the plan of reorganization. The Seaboard informed the commission that certain securities of the old Seaboard are held in Holland and other foreign countries, thereby delaying their deposit under the plan, and that the distributable share in respect to the non-deposited bonds cannot presently be ascertained.

TENNESSEE, ALABAMA & GEORGIA.—Changed Dividend.—This road on December 15 paid a dividend of 10 cents a share on the capital stock. The previous payment was 25 cents a share on June 16.

UNION PACIFIC.—Stock Split.—This road has applied to the Interstate Commerce Commission for authority to issue, on the basis of two shares for each outstanding share, 1,990,862 shares of preferred stock and 4,445,820 shares of common stock, par value \$50 per share, in lieu of 995,431 shares of preferred stock and 2,222,910 shares of common stock, par value \$100 per share, now outstanding. The proposal is designed to give the stocks a wider market and increase the number of stockholders. The two-for-one exchange would be made next July.

WISCONSIN CENTRAL.—Bonds.—Division 4 of the Interstate Commerce Commission has further modified its order of March 4, 1941, to extend to December 19, 1948, the date of termination of a deposit agreement of a protective committee for holders of this company's first general mortgage 50-year 4 per cent gold bonds, due July 1, 1949. The agreement, however, may be terminated before that date by the committee.

Dividends Declared

Camden & Burlington County.—75¢, semi-annually, payable January 2 to holders of record December 15.
 Canada Southern.—\$1.50, semi-annually, payable February 2 to holders of record December 26.
 Canadian Pacific.—4% non-cum. preferred (final), 2%, payable February 2 to holders of record December 31.
 Delaware.—\$1.00, semi-annually, payable January 2 to holders of record December 15.
 Detroit, Hillsdale & South Western.—\$2.00, semi-annually, payable January 5 to holders of record December 19.
 East Pennsylvania.—\$1.50, semi-annually, payable January 20 to holders of record January 2.
 Elmira & Williamsport.—7% preferred, \$1.60, semi-annually, payable January 2 to holders of record December 20.
 Illinois Terminal.—18¢, quarterly, payable February 1 to holders of record January 10.
 Joliet & Chicago.—stamped common, \$1.75, payable January 5 to holders of record December 24.
 Kansas City Southern.—4% non-cum preferred, \$1.00, quarterly, payable January 15 to holders of record December 31.
 Lykens Valley.—40¢, semi-annually, payable January 2 to holders of record December 15.
 Mahoning Coal.—common (year-end), \$12.50, payable December 30 to holders of record December 22; 5% preferred, \$1.25, semi-annually, payable January 2 to holders of record December 22.
 Nashville & Decatur.—7½% guaranteed, 93¼¢, semi-annually, payable January 2 to holders of record December 20.
 Northern Central.—\$2.00, semi-annually, payable January 15 to holders of record December 31.
 Norwich & Worcester.—8% preferred, \$2.00, quarterly, payable January 2 to holders of record December 15.
 Philadelphia & Trenton.—\$2.50, quarterly, payable January 10 to holders of record December 31.
 Pittsburgh, Cincinnati, Chicago & St. Louis.—\$2.50, semi-annually, payable January 20 to holders of record January 10.
 Providence & Worcester.—\$2.50, quarterly, payable December 31 to holders of record December 15.
 Savannah & Atlanta.—5% preferred, \$1.25, quarterly, payable January 2 to holders of record December 5.
 West Jersey & Seashore.—\$1.50, semi-annually, payable January 2 to holders of record December 15.
 Western New York & Pennsylvania.—common, \$1.50, semi-annually; 5% preferred, \$1.25, semi-annually, both payable January 2 to holders of record December 31.

Average Prices Stocks and Bonds

	Dec. 16	Last week	Last year
Average price of 20 representative railway stocks..	47.12	45.86	51.88
Average price of 20 representative railway bonds..	85.06	84.29	91.31

Railway Officers

EXECUTIVE

Curtis B. Bennett, whose appointment as assistant to the president of the New York, Chicago & St. Louis at Cleveland, Ohio, was reported in *Railway Age* of November 22, was born at Richmond, Ky., on August 23, 1897. He was graduated from Cornell University with a civil engineering degree in 1919. Mr. Bennett was with the Cleveland Railway Company (traction company) from 1919 until 1942, serving as field and office engineer, maintenance of way department, until 1932; assistant superintendent, same department, until 1935; property engineer until 1937; secretary to 1940, and vice-president and secretary until September, 1942. On the latter date Mr. Bennett became assistant to senior vice-president of the Chesapeake & Ohio at Cleveland, which position he held until his recent appointment as assistant to the president of the Nickel Plate.

James G. Morrison, whose appointment as assistant vice-president — traffic of the Northern Pacific, at St. Paul, Minn., was reported in *Railway Age* of December 13, was born on December 9, 1878, at Amboy



James G. Morrison

(Lee county), Ill., and was educated in the public schools of Minneapolis, Minn., and Watertown, S. D. Mr. Morrison entered railroad service in 1893 as a messenger with the Minneapolis & St. Louis, and the following year joined the St. Paul & Duluth (now N. P.) as a clerk. He became associated with the Chicago Great Western in 1897, serving successively as clerk, chief rate clerk and chief clerk in the general freight department. He advanced to assistant general freight agent in 1909, and later became assistant to vice-president of the C. G. W. During the period of federal control, Mr. Morrison was assistant secretary of the Western Freight Traffic Commission of the United States Railroad Administration. He became assistant general freight agent of the N. P. in 1920, and was advanced to general freight agent in 1925, to freight traffic manager in 1937 and to general freight traffic manager in 1940. Mr. Morrison was serving in the latter position

when he left the railroad in July, 1947, to engage in traffic association work. Upon his return to the N. P. recently he was appointed assistant vice-president—traffic.

George W. Hand, assistant to the president of the Chicago & North Western System at Chicago, will retire on January 1, after more than 44 years of railroad service. **Bradford W. Carlton**, assistant to the president, will assume the duties of Mr. Hand.

Mr. Hand was born on December 11, 1882, at Hometown, Ind., and received his higher education at Purdue University and the John Marshall Law School. He joined the North Western in 1903, and subsequently held various positions in the road's engineering department until 1914, when he was appointed valuation engineer. He served as corporation engineer from 1918 to 1920, during the period of federal control of the railroads by the U. S. Railroad Administration. He was promoted to assistant to the president of the North Western in 1920 and to the same position on the Chicago, St. Paul, Minneapolis & Omaha (part of the North Western System) in 1926. Mr. Hand has served as vice-president of the Superior Coal Company since 1929 and as vice-president of the Interstate Transit Lines since 1932.

FINANCIAL & LEGAL ACCOUNTING

H. H. Sass, assistant auditor of revenues of the Chesapeake & Ohio's Pere Marquette District at Detroit, Mich., has been promoted to auditor of revenues there, succeeding the late **W. R. McFarland**. Mr. Sass is succeeded by **C. W. Emerson**.

J. J. Murray, whose promotion to auditor of disbursements of the Great Northern, with headquarters at St. Paul, Minn., was



J. J. Murray

reported in *Railway Age* of December 6, joined the road in 1914 and served successively as clerk and traveling auditor. Mr. Murray became assistant special accountant in the controller's office in 1927, and was advanced to chief clerk in the office of the auditor of disbursements in 1934. He was serving in the latter capacity at the time of his new appointment.

Jeremiah Welch, assistant secretary and assistant treasurer of the Chicago, Milwaukee, St. Paul & Pacific, with head-

quarters at New York, will retire on December 31, after 56 years in the railroad industry, 43 years of which have been with the Milwaukee.

A. B. Durkee, tax investigator of the Atchison, Topeka & Santa Fe, at Los Angeles, Cal., has been appointed assistant tax agent for the road's Coast Lines, with the same headquarters.

H. L. Kendall has been appointed auditor of disbursements of the Spokane, Portland & Seattle, at Portland, Ore., succeeding the late **C. D. Phillips**.

Carl H. Schempp, whose appointment as assistant comptroller of the New York, Chicago & St. Louis at Cleveland, Ohio, was reported in *Railway Age* of November 29, was born on August 16, 1893, at Cleveland. After attending business college, Mr. Schempp entered railroad service on March 9, 1910, as clerk at the Cleveland freight station of the New York, Chicago & St. Louis, becoming traveling auditor on April 12, 1917. After military service, he returned to the Nickel Plate as traveling auditor at Cleveland, becoming chief clerk, auditor of revenues, at Cleveland on October 1, 1929. On December 1, 1939, Mr. Schempp was appointed assistant auditor of revenues at Cleveland, becoming auditor on April 1, 1942. He was promoted to general auditor at Cleveland on April 22, 1943, which position he held at the time of his recent appointment as assistant comptroller.

OPERATING

Lawrence W. Palmquist, whose promotion to division superintendent of the Chicago, Milwaukee, St. Paul & Pacific, at LaCrosse, Wis., was reported in *Railway Age* of November 22, received his higher education at the University of Minnesota and joined the engineering department of the Milwaukee at Minneapolis, Minn., in 1928. He became assistant to division engineer at Aberdeen, S. D., in 1931, and returned to Minneapolis in October of that year. He subsequently served at several points on the Milwaukee until 1936, when he was assigned to the general manager's office at Chicago. Mr. Palm-



Lawrence W. Palmquist

quist was advanced to trainmaster at Aberdeen in 1938 and to assistant superintendent at Perry, Iowa, in the following year. He next served successively at Aberdeen and

Green Bay, Wis., becoming assistant superintendent at Beloit, Wis., in June of this year, and was holding the latter position at the time of his recent appointment.

Paul C. Shu has been appointed trainmaster on the Southern's Western lines, with headquarters at Birmingham, Ala.

Robin I. Greenfield, safety agent of the Canadian Pacific Air Lines at Winnipeg, Man., has been appointed supervisor of the Canadian Pacific Railway's safety bureau at Montreal, Que., succeeding **E. L. Guertin**, who has been promoted to general safety agent for the Prairie and Pacific regions, with headquarters at Winnipeg.

John R. Marra, executive assistant to the president of the Railway Express Agency at New York, has been promoted to general manager of the Eastern Lakes department at Cleveland, Ohio, succeeding **A. C. White**, who will retire on January 1, 1948, after 45 years of continuous serv-



John R. Marra

ice. Mr. Marra entered the express business in 1916 at Utica, N. Y. After service in the U. S. Navy during World War I, he returned to the express business at Albany, N. Y., and has since served in various positions, including a term as chairman of the Standard Practices Committee.

R. Johnson, assistant superintendent of the Missouri Pacific, with headquarters at DeQuincy, La., has been appointed superintendent at Palestine, Tex., succeeding **F. H. Cook**, who has been granted a leave of absence due to ill health. Mr. Johnson is succeeded by **E. C. Sheffield**, superintendent of terminals at Houston, Tex., who in turn is succeeded by **N. L. Morris**.

Thomas J. Anderson, trainmaster on the Slaton (Tex.) division of the Panhandle & Santa Fe (part of the Atchison, Topeka & Santa Fe), has been transferred to the Santa Fe's Western division at Dodge City, Kan. He succeeds **Raymond D. Shelton**, who has been transferred to Pueblo, Colo., where he replaces **L. S. Cummings**, on sick leave.

TRAFFIC

A. L. Jackson, whose promotion to assistant passenger traffic manager of the Gulf, Mobile & Ohio, at St. Louis, Mo.,

was reported in *Railway Age* of October 11, was born on August 14, 1896, at St. Louis, and attended public schools in that city and the University of Texas, at Austin. Mr. Jackson began his railroad career as an office boy in the passenger department of the Chicago & Alton (later the Alton and now a part of the G. M. & O.), at St. Louis. He subsequently served successively as clerk, assistant city ticket agent and city ticket agent, until 1917, at which time he entered military service during World War I. Returning to the railroad in 1920, Mr. Jackson became district passenger agent at Little Rock, Ark., which position he held until 1933. In the latter year he was appointed traveling passenger agent for the Baltimore & Ohio and the Alton at Little Rock, and in 1936 he moved to St. Louis in the same capacity. Mr. Jackson was advanced to general passenger agent of the Alton at Chicago, in 1943, and following the acquisition of the latter road by the G. M. & O. in June, 1947, he was transferred to St. Louis in the position of general passenger agent. He was serving in the latter capacity at the time of his new appointment.

W. P. Lee, whose promotion to assistant freight traffic manager of the Chesapeake & Ohio, at Detroit, Mich., was reported in *Railway Age* of October 11, was born at Brighton, Mich., on August 3, 1890, and entered railroad service on March 8, 1909, with the Pere Marquette (now part of the C. & O.), at Detroit. He served successively as mail clerk, tariff clerk, rate clerk, and traveling



W. P. Lee

transit inspector until February, 1918, when he entered the service of the armed forces. In April, 1919, he re-entered the service of the Pere Marquette as a rate analyst in the general freight department at Detroit. From April, 1920, to December, 1922, he was assistant traffic manager with an automobile manufacturing company. Returning to the Pere Marquette in December, 1922, he served successively as special clerk, rate analyst, and transit clerk until May, 1932, when he was promoted to chief clerk to the freight traffic manager. Mr. Lee was advanced to assistant general freight agent at Detroit in 1939 and to general freight agent in February, 1946. He retained the latter position following the merger this year of the

P. M. and the C. & O., and was serving in that capacity at the time of his new appointment.

Carl J. Dombrow, whose promotion to assistant passenger traffic manager of the Denver & Rio Grande Western, at Denver, Colo., was reported in *Railway Age* of November 15, was born on November 4, 1899, at Chicago, and entered the service of the Rio Grande in that city in 1921 as a tracing clerk and stenographer in the freight traffic



Carl J. Dombrow

department. From 1924 to 1943, Mr. Dombrow served successively as city ticket agent, city passenger agent, and district passenger agent, all at Chicago. On March 18, 1943, he was advanced to general agent, passenger department, with headquarters at Salt Lake City, Utah, and on March 1, 1946, was promoted to assistant general passenger agent there. He was serving in the latter capacity at the time of his new appointment.

R. A. Cornell and **S. F. Witt** have been appointed division freight agent and freight service representative respectively of the Chesapeake & Ohio, with headquarters at Detroit, Mich.

George F. Sherman, division passenger agent of the Atchison, Topeka & Santa Fe at Denver, Colo., has been appointed division freight and passenger agent at St. Joseph, Mo., succeeding **C. H. Roesle**, who has retired after 46 years of railroad service. Mr. Sherman is succeeded at Denver by **Robert F. Emanuel**, traveling passenger agent at Chicago. **George W. Brown**, division freight and passenger agent, with headquarters at Phoenix, Ariz., has retired after 47 years of service with the company.

F. R. Ebersole, assistant general freight agent of the Atchison, Topeka & Santa Fe at Chicago, has been transferred to Topeka, Kan., succeeding **C. D. Speer**, who has retired after 51 years of railroad service. **G. W. Covington**, commercial agent at Kansas City, Mo., has been promoted to division freight agent there.

R. E. Mooney has been appointed chief of the Minneapolis & St. Louis' tariff bureau, at Minneapolis, Minn., succeeding **J. W. Keller**, whose promotion to assistant to vice-president—traffic was reported in *Railway Age* of December 13.

New Revenue from *streamlined scheduling*

Modern steam locomotives are powerful, fast, and capable of keeping heavy payloads moving at high speed over difficult terrain. But, they cannot produce revenue when they are lying in the yards awaiting re-assignment.

which your modern steam locomotive was designed. A series of availability studies followed up by revisions in scheduling will pay quick returns. It will prove conclusively that the modern steam locomotive is, and will continue to be, a potent factor in *economical* railroading.

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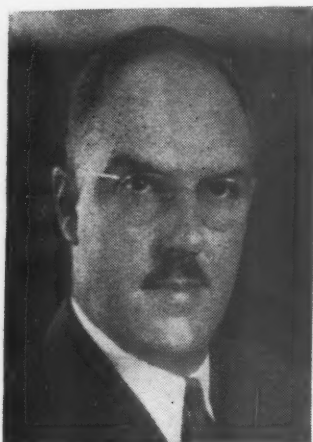
LIMA-HAMILTON CORPORATION

HAMILTON, OHIO
Hooven, Owens, Rentschler Co.
Niles Tool Works Co.

E. J. Brangle has been appointed general agent of the Missouri Pacific, with headquarters at St. Louis, Mo., succeeding **W. A. Ellersiek**, who has retired because of illness, after 47 years of service with the road.

R. E. Bauder, assistant general freight agent of the Lehigh & New England at Bethlehem, Pa., has been promoted to general freight agent, with the same headquarters. **J. S. Mowbray**, general agent, traffic department, at Hartford, Conn., succeeds Mr. Bauder as assistant general freight agent at Bethlehem. The position of general agent at Hartford has been abolished.

G. Allan MacNamara, general traffic manager of the Minneapolis, St. Paul & Sault Ste. Marie, with headquarters at Minneapolis, Minn., has been appointed vice-president of traffic of the Canadian



G. Allan MacNamara

Pacific, with headquarters at Montreal, Que., succeeding **George Stephen**, who will retire on December 31. Mr. MacNamara was born on February 4, 1894, at Winnipeg, Man., and entered railroad service in April, 1912, with the Canadian Northern (now Canadian National) at Winnipeg. He served overseas with the Canadian army from 1915 to 1919, returning to the C. N. R. in July, 1919, as rate clerk. Mr. MacNamara joined the Canadian Pacific in February, 1920, in the freight tariff bureau at Winnipeg, subsequently serving as rate clerk, assistant chief clerk and traveling freight agent at Winnipeg. In April, 1925, he became traveling freight agent at Minneapolis, Minn., and three years later he was appointed district freight agent at Indianapolis, Ind. In October, 1934, he became division freight agent at Detroit, Mich., subsequently serving as general freight agent at Detroit, Boston, Mass., and Chicago, successively. On October 1, 1944, Mr. MacNamara was appointed general traffic manager of the Minneapolis, St. Paul & Sault Ste. Marie, which position he held at the time of his recent appointment.

Mr. Stephen was born at Montreal on July 5, 1876, and entered railroad service on June 22, 1889, with the Canadian Pacific at Montreal, subsequently serving at various other locations on that road. In June, 1901, he went with the Canadian Northern at Winnipeg, where he served successively as chief clerk in the general freight office, as-

sistant general freight agent, general freight agent, assistant freight traffic manager and freight traffic manager, becoming freight traffic manager of the Canadian National at Toronto, Ont., in December, 1918. In November, 1922, Mr. Stephen resigned from the Canadian National to re-enter the service of the Canadian Pacific as assistant freight traffic manager, lines West of Fort William, with headquarters at Winnipeg. In July, 1927, he became freight traffic manager, C. P. R., at Montreal, and he was appointed vice-president in charge of traffic on June 1, 1930.

ENGINEERING & SIGNALING

Theodore M. von Sprecken, whose appointment as assistant to the chief engineer (system) of the Southern at Washington, D.C., was reported in *Railway Age* of December 6, was born at Augusta, Ga., on August 7, 1893. Mr. von Sprecken was graduated from the University of Georgia with a degree of bachelor of science in civil engineering in 1914. He entered railroad service that year as levelman with the Southern, during main line construction in Virginia and North Carolina, serving later as transitman and masonry inspector until 1917. During 1918 he was a second lieutenant in the U.S. Army Air Service. From 1919 to 1928 Mr. von Sprecken served suc-



Theodore M. von Sprecken

cessively as draftsman, designer and assistant engineer in the construction and maintenance departments of the Southern. From 1928 to 1931 he was resident structural engineer in the construction department of the Cincinnati, New Orleans & Texas Pacific at Lexington, Ky., then becoming assistant engineer in the office of the chief engineer of the Southern at Washington, D.C. In 1937 he was appointed assistant bridge and building supervisor of the Alabama Great Southern at Birmingham, Ala., and the following year he became bridge and building supervisor of the C. N. O. & T. P. at Somerset, Ky. From 1939 to 1946 Mr. von Sprecken was engineer of bridges of the Western lines of the Southern at Cincinnati, Ohio, and on February 1, 1946, he became chief engineer maintenance of way and structures of the Eastern lines at Charlotte, N. C., which position he held at the time of his recent appointment as assistant to the chief engineer (system) at Washington.

John E. Gault, assistant chief engineer on the Chicago, Indianapolis & Louisville, with headquarters at LaFayette, Ind., has resigned.

R. V. Hazer has been appointed assistant engineer in the valuation department of the Missouri Pacific at St. Louis, Mo., succeeding **W. R. Luhn**, who has been appointed assistant engineer, maintenance of way. Mr. Luhn succeeds **David X. Greenberg**, whose death was reported in *Railway Age* of November 1.

Maro Johnson, whose retirement as principal assistant engineer of the Illinois Central at Chicago, was reported in *Railway Age* of December 6, was born at Iowa City, Iowa, on November 27, 1877, and received a degree of Bachelor of Science in Civil Engineering from the University of Iowa. He entered railway service with the I. C. in 1898 as masonry inspector, and in 1905 he was made resident engineer on construction at Indianapolis, Ind. In 1907 he was appointed resident engineer on grade separation at Chicago, serving in that capacity until 1912, when he became assistant engineer of bridges. He was promoted to engineer of bridges and buildings in 1913, and from 1916 to 1920 was engaged in designing and erecting the St. Charles Air Line bascule bridge over the Chicago river. In 1920 Mr. Johnson was appointed assistant engineer on the staff of the chief engineer, handling special projects as assigned, and in 1932 he became principal assistant engineer, the position he held at the time of his retirement.

MECHANICAL

The headquarters of **A. R. Snyder**, mechanical superintendent of Diesel power of the Union Pacific, have been transferred from Omaha, Neb., to Salt Lake City, Utah, so that Mr. Snyder will be centrally located with respect to the area in which the road's Diesel locomotives are chiefly used.

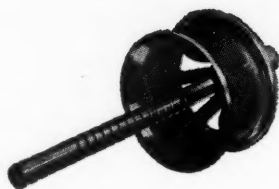
PURCHASES & STORES

George N. Hoefler, whose appointment as assistant purchasing agent of the New York, Chicago & St. Louis at Cleveland, Ohio, was reported in *Railway Age* of November 22, was born on May 11, 1903, at Northfield, Ohio. Mr. Hoefler entered the service of the Nickel Plate on April 8, 1923, as a stenographer in the purchasing department at Cleveland. He advanced through various positions in the purchasing department of the Nickel Plate and also in the combined purchasing department of the Chesapeake & Ohio, Pere Marquette and the Nickel Plate when it was formed. In 1945 Mr. Hoefler became secretary to the chief purchasing and stores officer of the three roads, which position he held at the time of his recent appointment as assistant purchasing agent of the Nickel Plate.

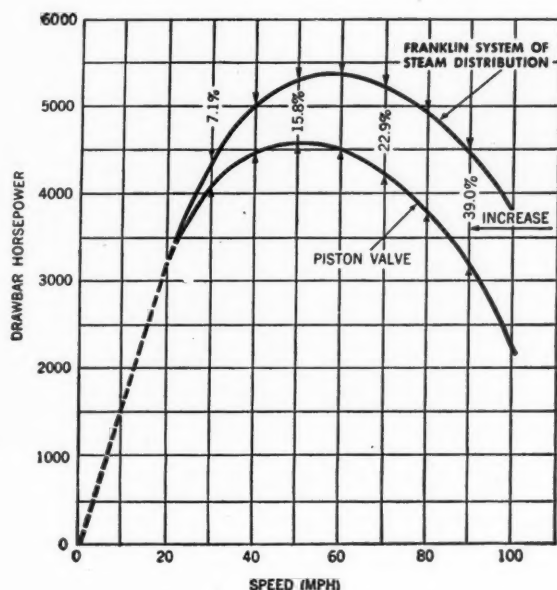
W. G. Mateer, purchasing agent of the Elgin, Joliet & Eastern, at Chicago, has been appointed manager of purchases and stores at that point. Mr. Mateer's former position has been abolished.

Harry V. Schiltz, whose promotion to assistant general purchasing agent of the

This is what the Franklin System of Steam Distribution will do for a Modern Locomotive

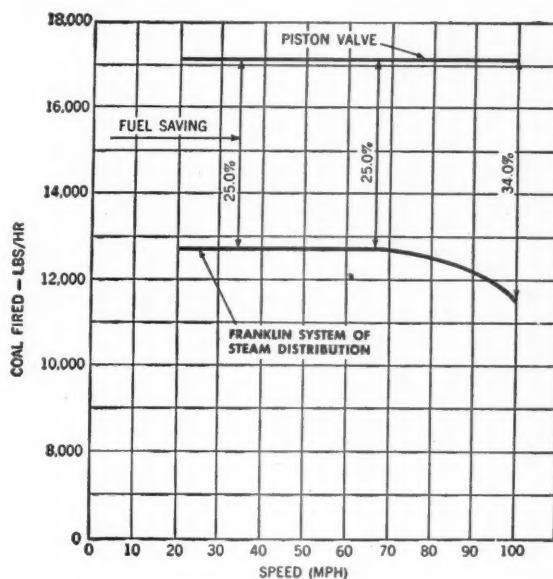


These curves show the improvement in performance that may be expected from a modern locomotive when it is equipped with the Franklin System of Steam Distribution. Computations are based on a 4-8-4 locomotive of recent design. Boiler pressure is 300 psi, steam temperature is 730° F, cylinders are 25 x 32 inches, driving wheels are 80 inches in diameter, total heating surface is 4225 sq. ft. and grate area is 100.2 sq. ft.



INCREASED HORSEPOWER

This curve shows a comparison of horsepower at rear of tender for a modern locomotive when equipped with piston valves and when equipped with the Franklin System of Steam Distribution. In both cases, steam consumption by the engine is 90,000 lbs per hour.



SAVING IN FUEL

This curve shows coal required to develop the horsepower shown for the piston-valve locomotive in the curve above.



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NEW YORK • CHICAGO • MONTREAL

STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS
AUTOMATIC FIRE DOORS • DRIVING BOX LUBRICATORS • STEAM GRATE SHAKERS • FLEXIBLE JOINTS • CAR CONNECTION

Burlington Lines, with headquarters at Chicago, was reported in *Railway Age* of December 6, was born on September 18, 1903, at Aurora, Ill. Mr. Schiltz attended grade school, high school and business college in the latter city, and later studied at the Coyne Electrical School at Chicago.



Harry V. Schiltz

He entered service in the stores department of the Chicago, Burlington & Quincy at Aurora in 1918, holding various positions there until November, 1922, when he was transferred to the general office of the road's stores department in Chicago. In 1929, Mr. Schiltz became equipment and machinery clerk in the purchasing department, and in 1932 was advanced to buyer in the purchasing-stores department. He was serving in the latter capacity at the time of his new appointment.

John F. McAlpine, whose promotion to assistant general purchasing agent of the Burlington Lines, with headquarters at Chicago, was reported in *Railway Age* of December 6, was born on January 5, 1891,



John F. McAlpine

at Indianola, Neb., and attended school and business college in Lincoln, Neb. Mr. McAlpine began his railroad career in 1909 as a platform foreman at the Lincoln store of the Chicago, Burlington & Quincy, and subsequently held positions successively of receiving clerk at Lincoln; clerk and accountant at Havelock, Neb.; chief clerk, Alliance, Neb.; chief clerk, Plattsmouth, Neb.; clerk in the operating department at Omaha, Neb.; and chief clerk at Galesburg, Ill. He became acting storekeeper at Beardstown, Ill., in 1919, and the follow-

ing year was appointed chief clerk to the general storekeeper at Chicago. From 1931 to 1934, Mr. McAlpine served as chief clerk, purchasing-stores department at Chicago, and in the latter year was advanced to assistant purchasing agent, which position he held at the time of his new appointment.

William Roy Bowers, whose appointment as assistant general purchasing agent of the New York, Chicago & St. Louis at Cleveland, Ohio, was reported in *Railway Age* of November 22, was born on October 16, 1902, at Richmond, Va. Mr. Bowers entered the service of the Chesapeake & Ohio at Richmond as a clerk in the valu-



William Roy Bowers

ation department. A year and a half later he transferred to the purchasing department as chief file clerk, and advanced through various positions there until 1930 when he went to Cleveland as tabulation clerk in the purchasing department. In 1942 he was appointed assistant purchasing agent of the New York, Chicago & St. Louis, the C. & O. and the Pere Marquette, which positions he held at the time of his recent appointment as assistant general purchasing agent of the Nickel Plate.

James R. Clary, whose appointment as general purchasing agent of the New York, Chicago & St. Louis at Cleveland, Ohio,

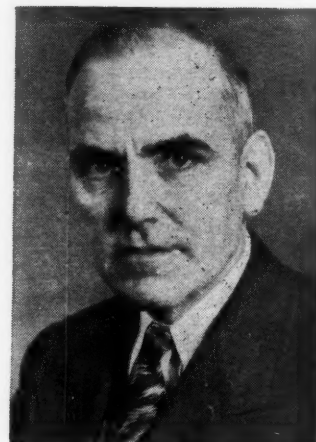


James R. Clary

was reported in *Railway Age* of November 22, was born on September 8, 1903, at Richmond, Va. He entered railroad service with the Chesapeake & Ohio at Richmond as a clerk in the accounting department.

Two years later he transferred to the purchasing department as secretary to the purchasing agent and advanced through various positions there until 1929 when he went to Cleveland as chief clerk in the purchasing department. In 1942 he was appointed assistant purchasing agent of the New York, Chicago & St. Louis, the C. & O. and the Pere Marquette, which positions he held at the time of his recent appointment as general purchasing agent of the Nickel Plate, having jurisdiction over purchases and stores.

S. R. Secor, whose appointment as assistant general purchasing agent of the Chesapeake & Ohio at Cleveland, Ohio, was reported in *Railway Age* of November 29, was born on October 11, 1895, at Valley City, N. D. Mr. Secor entered railroad service on October 2, 1911, as office boy in the accounting department of the Wabash at St. Louis, Mo., and on August 12, 1912, he took a similar position in the purchasing department of the St. Louis-San Francisco and the Chicago & Eastern Illinois at St. Louis. From October, 1917, to May, 1919, he served in the U. S. Army with the 128th Field Artillery. After discharge, he returned to the purchasing department of the



S. R. Secor

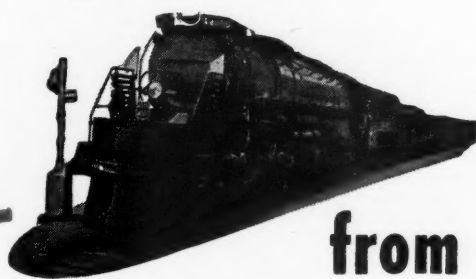
Frisco at St. Louis which during federal control was a joint office with the Missouri-Kansas-Texas. In July, 1920, Mr. Secor went with the Texas & Pacific at Dallas, Tex., as order clerk in the purchasing department. Later that year he went with the Pere Marquette at Detroit in a similar capacity. In 1930 he was transferred to Cleveland where the Chesapeake & Ohio and Pere Marquette purchasing departments were consolidated. On August 1, 1937, Mr. Secor was appointed assistant purchasing agent of the C. & O., the New York, Chicago & St. Louis and the Pere Marquette and on July 1, 1942, he was appointed assistant to general purchasing agent of the three roads, which positions he held until his recent appointment as assistant general purchasing agent of the C. & O.

OBITUARY

C. D. Phillips, auditor of disbursements of the Spokane, Portland & Seattle, with headquarters at Portland, Ore., died recently.

G. V. Emigh, radio engineer of the New York, Chicago & St. Louis, with headquarters in Cleveland, Ohio, died in that city of a heart attack on December 10.

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● The installation of Security Circulators in a locomotive boiler provides a large additional heating area in the path of the hot gases.

This enables the locomotive to get up steam more speedily; increases the rapidity of water circulation from the side legs over the crown sheet; and aids in maintaining maximum boiler output.

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AMERICAN ARCH COMPANY, INC.

NEW YORK • CHICAGO

SECURITY CIRCULATOR DIVISION

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1947

Name of road	Av. mileage operated during period	Operating revenues				Operating expenses		Operating ratio	Net from railway operation	Net railway operating income	
		Freight	Passenger	(inc. misc.)	Total	Maintenance of way and structures	Traffic			Operating expenses	Net railway operating income
Akron, Canton & Youngstown	Oct. 10 mos.	\$481,813	\$112	\$301,224	\$796,370	\$76,370	\$25,199	60.6	\$197,540	\$303,684	\$74,123
Atchison, Topeka & Santa Fe System	Oct. 10 mos.	4,120,166	947	4,320,247	704,814	429,474	246,488	67.6	1,400,936	\$76,604	\$104,249
Atchison, Topeka & Santa Fe System	Oct. 10 mos.	34,888,737	3,966,531	42,086,331	6,521,623	7,072,474	877,098	72.1	11,756,917	555,113	676,495
Atchison, Topeka & Santa Fe System	Oct. 10 mos.	300,860,787	41,901,927	374,300,634	55,322,361	69,508,630	8,157,181	74.0	97,415,634	6,038,254	5,297,790
Atlanta & St. Andrews Bay	Oct. 10 mos.	154,588	768	161,188	16,562	24,388	5,963	60.4	63,852	18,917	30,623
Atlanta & St. Andrews Bay	Oct. 10 mos.	1,431,166	13,442	1,516,373	176,308	151,899	59,863	59.8	609,741	267,877	245,164
Atlanta & St. Andrews Bay	Oct. 10 mos.	27,641,316	19,621	33,131,616	418,485	483,280	13,336	87.0	42,960	21,526	7,384
Atlanta & West Point	Oct. 10 mos.	2,515,153	469,610	3,360,031	310,392	1,661,707	130,392	86.4	456,263	226,498	7,384
Western of Alabama	Oct. 10 mos.	287,661	19,459	336,060	42,784	58,819	12,908	86.6	44,940	31,893	8,763
Western of Alabama	Oct. 10 mos.	2,484,506	488,202	3,286,958	391,286	558,728	124,838	82.2	583,927	365,788	200,549
Western of Alabama	Oct. 10 mos.	8,027,701	1,174,705	9,942,458	2,119,000	1,944,338	276,806	91.0	891,084	600,000	250,056
Atlantic Coast Line	Oct. 10 mos.	78,817,212	18,704,873	105,347,925	22,788,680	18,893,465	2,629,128	88.9	11,715,416	8,500,000	1,198,272
Charleston & Western Carolina	Oct. 10 mos.	357,145	4,828	376,198	80,709	96,990	13,947	94.8	19,608	25,000	-9,371
Charleston & Western Carolina	Oct. 10 mos.	3,606,798	35,748	3,751,218	714,230	750,504	128,916	85.0	563,045	3,320,981	221,895
Charleston & Western Carolina	Oct. 10 mos.	28,524,713	1,904,850	32,230,202	4,220,634	6,819,944	708,669	83.9	5,202,196	2,320,981	2,044,588
Baltimore & Ohio	Oct. 10 mos.	258,459,591	19,948,603	295,894,003	37,697,885	63,433,438	6,753,690	83.5	48,820,219	20,865,979	24,276,315
Baltimore & Ohio	Oct. 10 mos.	151,834	103,331	267,691	62,618	42,339	1,621	106.3	-16,891	41,105	-92,058
Baltimore & Ohio	Oct. 10 mos.	1,471,546	1,095,436	2,698,453	479,423	357,245	16,524	96.4	1,505,875	2,602,163	-300,844
Baltimore & Ohio	Oct. 10 mos.	602,891,921	51,646	9,720,379	2,243,709	1,769,893	78,515	87.6	105,004	1,177,680	1,185,150
Staten Island Rapid Transit	Oct. 10 mos.	2,503,337	1,189	2,519,800	152,189	501,586	19,031	49.6	1,269,719	709,107	948,786
Bangor & Aroostook	Oct. 10 mos.	19,220,536	15,381	19,388,597	3,389,033	4,525,837	173,803	55.6	8,617,295	4,756,890	6,703,661
Bangor & Aroostook	Oct. 10 mos.	5,679,841	1,141,377	7,415,369	1,137,139	1,181,834	122,769	79.0	1,561,110	4,721,521	520,018
Bangor & Aroostook	Oct. 10 mos.	50,071,672	12,776,348	69,053,292	11,240,925	10,768,073	1,011,783	79.2	14,357,046	6,758,598	4,723,580
Bessemer & Lake Erie	Oct. 10 mos.	232,113	52,080	300,298	47,011	43,144	4,497	84.4	46,895	13,051	-10,652
Bessemer & Lake Erie	Oct. 10 mos.	237,913	541,320	3,204,881	424,848	387,575	41,949	76.8	743,702	108,782	136,551
Bessemer & Lake Erie	Oct. 10 mos.	164,222	164,301	14,533	90,513	90,513	22,426	86.3	22,364	599,004	408,408
Burlington-Rock Island	Oct. 10 mos.	1,379,866	1,380,339	134,709	904,988	7,680	6,763	97.85	29,602	1,350,737	589,305
Cambria & Indiana	Oct. 10 mos.	267,477	25,407	315,610	122,947	56,666	7,480	106.6	-20,742	22,991	-93,944
Canadian Pacific Lines in Maine	Oct. 10 mos.	3,800,892	366,341	4,407,915	843,852	691,596	71,260	93.2	915,795	246,812	-155,394
Canadian Pacific Lines in Maine	Oct. 10 mos.	141,978	13,264	174,481	35,339	51,178	14,652	157.7	-100,676	17,897	-106,314
Canadian Pacific Lines in Vermont	Oct. 10 mos.	1,367,335	187,399	1,753,301	476,635	297,939	48,948	128.5	-499,148	166,170	-1,098,533
Central of Georgia	Oct. 10 mos.	2,425,946	195,105	2,889,509	438,330	460,444	96,498	90.3	276,605	251,985	41,748
Central of Georgia	Oct. 10 mos.	21,696,601	2,423,860	26,600,137	4,519,396	4,527,754	981,883	93.8	1,813,024	2,456,132	-475,029
Central of Georgia	Oct. 10 mos.	3,553,555	509,481	4,253,404	597,822	594,425	53,724	93.8	204,264	3,944,294	-3,625,503
Central of New Jersey	Oct. 10 mos.	23,779,895	4,924,708	31,073,910	4,496,009	5,391,505	511,936	89.9	3,131,665	3,944,294	-3,625,503
Central of New Jersey	Oct. 10 mos.	1,597,708	15,734	1,644,877	165,736	353,458	24,532	66.2	555,438	71,793	705,941
Central of New Jersey	Oct. 10 mos.	14,506,307	186,032	14,990,114	1,328,894	1,328,894	221,158	64.2	5,352,833	666,144	6,618,107
Central of Pennsylvania	Oct. 10 mos.	648,000	805,000	7,794,116	1,349,718	1,297,717	118,064	83.1	1,318,571	531,533	302,938
Central of Pennsylvania	Oct. 10 mos.	27,063,881	869,431	29,171,439	4,549,589	4,967,686	684,526	74.15	7,539,720	3,845,287	4,006,480
Central of Pennsylvania	Oct. 10 mos.	236,208,831	10,074,208	258,123,373	36,547,848	45,465,291	5,965,566	73.01	69,667,535	35,382,493	37,159,733
Chesapeake & Ohio	Oct. 10 mos.	1,996,556	298,669	2,421,833	327,209	327,209	90,381	87.3	321,001	187,300	809
Chesapeake & Ohio	Oct. 10 mos.	17,691,499	3,215,531	23,176,277	3,201,480	4,566,157	792,799	86.7	3,093,585	1,667,800	316,346
Chicago & Eastern Illinois	Oct. 10 mos.	681,789	970	730,515	79,669	119,533	24,786	61.8	278,983	108,712	168,296
Chicago & Eastern Illinois	Oct. 10 mos.	6,203,927	9,867	6,594,704	879,101	1,160,085	281,151	65.7	2,558,756	994,540	1,257,812
Chicago & Eastern Illinois	Oct. 10 mos.	13,061,350	2,066,595	15,761,824	2,193,683	2,859,935	309,937	78.7	3,565,729	1,853,847	1,246,051
Chicago & Eastern Illinois	Oct. 10 mos.	109,220,876	20,724,987	145,511,881	21,954,835	27,680,073	2,817,200	84.4	22,667,006	12,317,126	6,688,555
Chicago & North Western	Oct. 10 mos.	17,677,454	1,486,400	20,829,148	3,369,582	2,787,135	381,806	68.5	6,563,675	3,105,417	3,060,531
Chicago & North Western	Oct. 10 mos.	148,384,580	14,919,132	178,996,707	26,423,101	23,391,525	3,754,644	67.6	58,801,908	27,836,046	26,452,249
Chicago & North Western	Oct. 10 mos.	2,829,963	66,207	3,128,302	432,800	353,175	91,115	71.4	5,077,417	1,429,065	1,757,505
Chicago & North Western	Oct. 10 mos.	22,673,283	778,069	25,415,903	3,904,117	3,456,784	803,514	80.0	5,077,417	1,429,065	1,757,505
Chicago Great Western	Oct. 10 mos.	1,346,684	102,451	1,533,411	146,102	185,632	67,177	70.1	458,879	90,943	238,797
Chicago Great Western	Oct. 10 mos.	11,097,385	707,429	12,888,810	1,288,810	1,810,435	582,847	84.6	1,937,595	810,956	24,230
Chicago Great Western	Oct. 10 mos.	10,979,380	1,598,707	12,608,087	1,598,707	2,340,033	518,341	75.6	5,618,341	2,340,033	2,998,546
Chicago Great Western	Oct. 10 mos.	153,523,129	17,627,211	189,405,919	32,555,821	30,205,323	3,339,701	81.0	36,043,072	17,146,000	13,106,305
Chicago, Indianapolis & Louisville	Oct. 10 mos.	541	541	1,346,684	102,451	185,632	67,177	70.1	458,879	90,943	238,797
Chicago, Indianapolis & Louisville	Oct. 10 mos.	11,097,385	707,429	12,888,810	1,288,810	1,810,435	582,847	84.6	1,937,595	810,956	24,230
Chicago, Indianapolis & Louisville	Oct. 10 mos.	10,979,380	1,598,707	12,608,087	1,598,707	2,340,033	518,341	75.6	5,618,341	2,340,033	2,998,546
Chicago, Milwaukee, St. Paul & Pacific	Oct. 10 mos.	153,523,129	17,627,211	189,405,919	32,555,821	30,205,323	3,339,701	81.0	36,043,072	17,146,000	13,106,305
Chicago, Milwaukee, St. Paul & Pacific	Oct. 10 mos.	12,311,242	1,870,172	15,215,769	2,087,798	2,370,541	405,087	73.6	4,010,488	1,536,541	1,833,543
Chicago, Milwaukee, St. Paul & Pacific	Oct. 10 mos.	117,112,388	19,067,548	147,026,343	19,048,457	23,201,416	4,005,483	73.7	38,708,191	14,069,620	17,602,045
Chicago, Milwaukee, St. Paul & Pacific	Oct. 10 mos.	2,436,078	218,795	2,890,276	385,143	394,587	59,675	78.3	627,769	207,040	442,434
Chicago, Milwaukee, St. Paul & Pacific	Oct. 10 mos.	21,063,793	2,281,342	25,587,673	3,734,505	4,183,624	522,163	83.8	4,146,268	1,954,997	988,859
Chicago, St. Paul, Minn. & Omaha	Oct. 10 mos.	1,537,573	54,872	1,593,336	151,152	257,272	32,005	60.7	610,406	186,132	541,752
Chicago, St. Paul, Minn. & Omaha	Oct. 10 mos.	14,251,268	1,537,573	15,933,336	1,511,152	2,572,722	320,005	60.7	6,313,126	1,553,183	5,602,585
Clinchfield	Oct. 10 mos.	316	316	1,537,573	151,152	257,272	32,005	60.7	610,406	186,132	541,752

Table continued on next left-hand page.

Railway Age—December 20, 1947



SEASON'S GREETINGS

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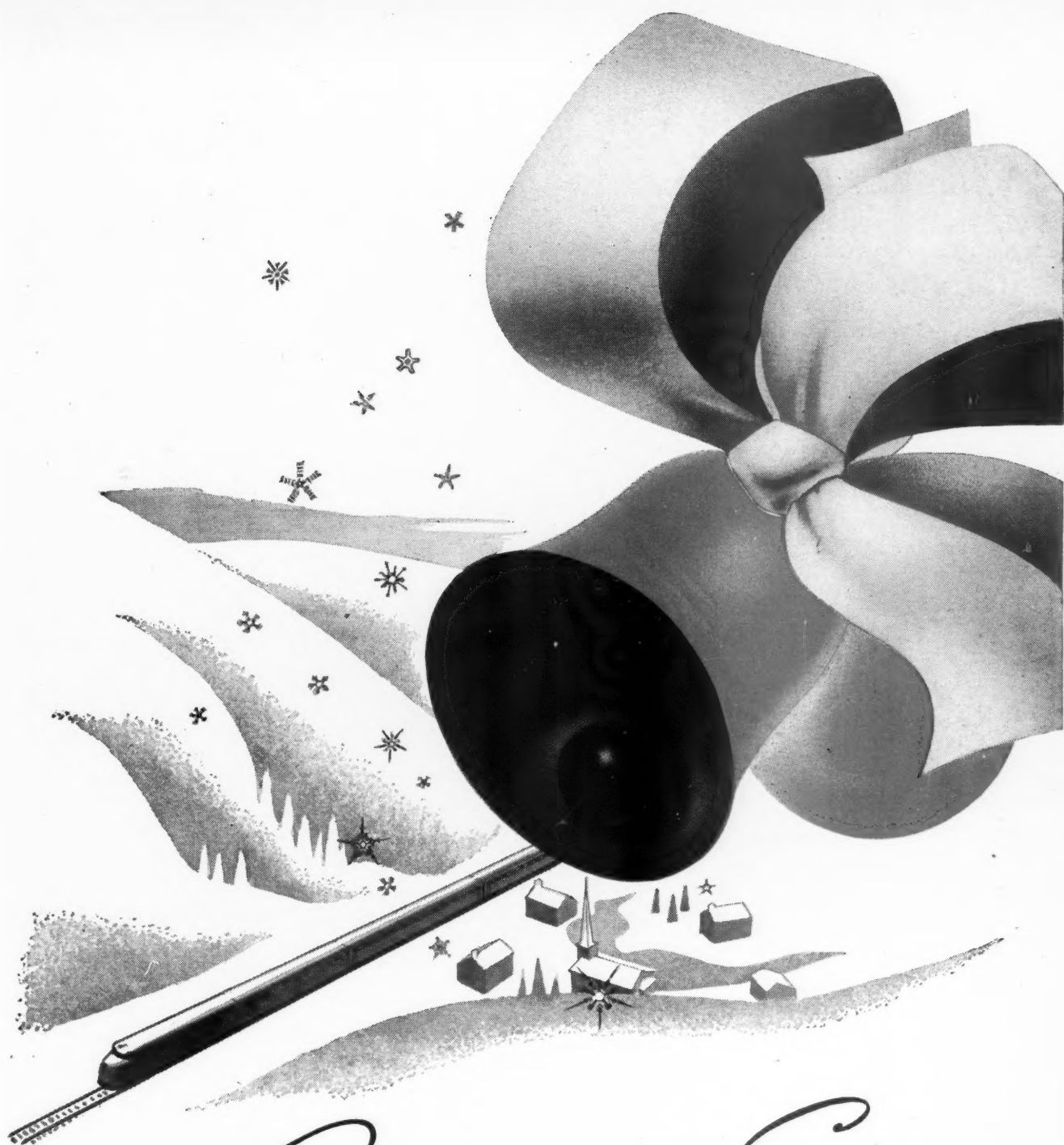
REVENUES AND EXPENSES OF RAILWAYS

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1947—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income			
		Freight	Passenger	Total (inc. misc.)	Way and structures	Maintenance of equipment	Traffic			Trans- portation	Total	Railway tax-accruals	1947	1946
Colorado & Southern	745	\$1,013,564	\$80,276	\$1,093,840	\$124,468	\$167,425	\$23,474	\$522,755	\$888,001	\$305,151	\$163,226	\$95,265	\$40,086
10 mos.	747	8,142,246	1,015,353	9,157,599	1,272,894	1,798,604	232,164	4,252,958	8,322,588	1,258,191	1,124,683	689,330	258,477
Ft. Worth & Denver City	902	9,624,073	1,582,754	12,095,128	1,257,752	1,798,604	232,164	4,252,958	1,002,684	1,581,777	1,352,391	190,693	11,051
10 mos.	902	9,624,073	1,582,754	12,095,128	1,257,752	1,798,604	232,164	4,252,958	8,320,372	1,352,391	1,352,391	1,745,906	731,021
Colorado & Wyoming	42	123,327	.....	123,327	193,697	21,193	436	70,854	110,534	83,163	43,312	40,266	21,715
10 mos.	42	991,401	.....	991,401	1,668,769	168,308	8,847	625,459	965,926	373,940	332,774	332,774	211,541
Columbus & Greenville	168	159,742	3,049	162,791	173,401	19,319	4,718	49,236	119,524	702,843	11,167	43,195	12,238
10 mos.	168	1,258,650	31,617	1,290,267	1,388,661	249,986	49,709	541,150	1,384,479	53,877	127,660	96,980	23,571
Delaware & Hudson	794	4,692,220	189,800	4,882,020	4,995,837	1,009,957	68,815	1,762,894	3,629,369	1,366,468	706,047	690,362	821,657
10 mos.	794	40,570,878	2,040,594	42,611,472	5,523,587	9,274,754	605,579	16,568,668	33,520,640	10,399,627	5,446,389	5,007,402	3,444,296
Delaware, Lackawanna & Western	973	5,983,224	831,685	6,814,909	7,382,435	1,126,285	140,276	3,377,311	5,411,878	1,570,557	7,552,061	7,552,061	8,316,819
10 mos.	973	52,559,589	8,436,332	61,005,921	8,313,360	10,554,976	1,318,019	30,171,788	52,494,835	14,172,897	6,657,009	6,710,435	3,416,819
Denver & Rio Grande Western	2,467	5,392,128	244,633	5,636,761	5,870,075	546,387	937,333	137,081	3,890,973	1,979,102	714,808	1,236,091	1,020,683
10 mos.	2,469	42,917,069	2,727,712	45,644,781	5,838,205	9,119,865	1,303,743	17,696,113	36,277,749	11,468,034	6,629,491	4,001,628	3,444,296
Detroit & Mackinac	230	184,275	1,836	186,111	199,268	36,325	1,597	9,533	91,365	107,903	40,291	58,456	37,630
10 mos.	230	1,371,269	17,841	1,389,110	1,508,477	297,107	12,606	334,093	851,703	656,774	247,549	358,321	172,308
Detroit & Toledo Shore Line	50	471,219	.....	471,219	474,639	73,942	11,359	142,308	274,520	200,389	57,484	58,438	55,799
10 mos.	50	4,528,001	.....	4,528,001	4,550,266	502,293	112,056	1,363,314	2,437,744	2,112,522	648,862	689,349	376,262
Detroit, Toledo & Ironton	464	1,075,968	811	1,076,779	1,124,831	158,008	20,742	278,491	658,377	466,434	193,707	268,214	235,106
10 mos.	464	10,358,996	9,371	10,368,367	12,666,241	1,648,097	191,958	2,807,085	6,236,832	4,582,809	1,865,859	2,486,917	1,474,267
Duluth, Missabe & Iron Range	548	4,249,859	2,777	4,252,636	4,580,783	446,702	6,633	1,259,297	2,227,289	2,668,474	1,221,031	1,426,020	1,982,524
10 mos.	547	30,782,949	30,957	30,813,906	4,184,297	4,056,238	70,430	17,853,093	17,853,093	18,002,927	8,254,991	9,673,992	8,186,188
Duluth, Winnipeg & Pacific	175	2,944,000	1,500	2,945,500	3,478,800	43,781	3,089	134,762	258,904	88,896	27,276	25,418	9,707
10 mos.	175	2,944,000	1,500	2,945,500	3,478,800	43,781	3,089	134,762	258,904	88,896	27,276	25,418	9,707
Elgin, Joliet & Eastern	391	3,007,579	48	3,007,627	3,566,510	308,832	23,546	1,293,055	2,217,291	1,349,219	541,343	582,281	359,071
10 mos.	391	26,839,712	113	26,839,825	2,417,234	4,433,088	215,263	12,254,418	20,213,831	11,617,292	4,681,256	4,587,301	893,974
Erie	2,229	13,164,363	615,823	13,780,186	1,326,665	2,350,919	289,126	2,697,365	10,851,312	3,731,353	1,458,417	1,510,613	1,129,461
10 mos.	2,229	110,998,716	6,011,425	117,010,141	14,102,314	22,008,257	2,697,365	55,075,040	99,624,864	25,662,048	11,152,610	8,984,388	3,569,922
Florida East Coast	575	1,318,789	384,684	1,703,473	1,881,716	564,956	65,573	814,592	2,064,871	183,155	156,536	419,948	210,707
10 mos.	607	13,709,047	6,491,952	20,200,999	22,246,747	4,687,860	599,998	8,522,712	19,385,137	2,861,610	1,635,394	1,988,880	2,107,751
Georgia Railroad	326	611,492	259,045	870,537	683,352	97,062	28,143	340,332	599,546	83,788	46,861	46,791	41,515
10 mos.	328	5,781,554	299,045	6,080,599	6,506,335	871,454	268,949	3,237,292	5,679,479	826,856	463,662	529,442	41,515
Georgia & Florida	408	181,404	2,340	183,744	188,618	30,133	12,016	88,964	203,350	14,732	16,842	44,276	18,607
10 mos.	408	2,023,137	24,084	2,047,221	2,105,537	288,018	122,058	889,307	3,933,868	131,669	162,925	140,325	91,402
Grand Trunk Western	972	3,651,000	219,000	3,870,000	764,295	4,401,13	49,236	1,790,722	3,441,578	645,441	273,195	241,765	283,471
10 mos.	972	33,015,000	1,929,000	34,944,000	5,892,032	6,279,580	502,293	16,542,736	30,520,499	6,934,522	2,584,666	2,833,205	2,262,764
Canadian Nat'l Lines in New England	172	175,000	6,000	181,000	193,000	69,318	2,577	105,395	220,096	114.0	27,096	88,916	104,665
10 mos.	172	1,552,000	126,400	1,678,400	1,804,100	634,337	25,465	1,098,653	2,198,211	394,111	255,559	946,967	1,029,009
Great Northern	8,333	19,558,484	1,092,941	20,651,425	21,837,503	2,699,983	313,257	6,738,886	13,070,711	8,766,772	3,607,027	4,586,269	5,343,221
10 mos.	8,333	136,126,893	10,952,118	147,079,011	159,372,445	26,281,173	3,137,716	55,878,827	117,005,115	42,507,330	20,842,140	20,081,257	18,084,177
Green Bay & Western	234	269,119	30	269,149	275,110	77,005	15,864	88,103	220,943	54,127	26,624	10,727	42,254
10 mos.	234	2,514,384	382	2,514,766	2,574,516	668,794	146,749	848,570	2,036,453	518,061	303,296	92,993	98,173
Gulf, Mobile & Ohio	2,904	5,882,380	558,303	6,440,683	6,873,977	1,106,518	213,397	2,133,290	4,301,344	1,842,673	743,563	663,609	388,680
10 mos.	2,904	50,463,575	5,667,269	56,130,844	60,501,330	10,379,656	1,967,934	19,596,497	45,300,761	15,200,569	5,694,214	5,799,971	628,701
Illinois Central (System)	6,381	17,761,485	2,356,305	20,117,790	3,737,033	3,453,663	363,866	8,032,363	16,563,068	5,603,067	2,956,948	2,242,071	1,520,497
10 mos.	6,382	186,230,671	21,527,089	207,757,760	32,608,099	34,560,893	3,722,720	71,270,171	150,901,853	48,411,311	24,975,612	20,488,441	13,125,209
Illinois Terminal	474	885,072	126,580	1,011,652	1,253,833	149,180	29,358	3,464,024	711,635	412,178	180,485	203,825	127,532
10 mos.	475	7,511,341	1,281,714	8,793,055	9,797,937	1,258,601	270,392	3,464,024	6,578,767	3,219,170	1,407,136	1,495,049	757,252
Kansas City Southern	890	2,859,301	92,464	2,951,765	275,992	405,468	84,044	877,102	1,762,534	1,413,429	486,000	757,937	483,999
10 mos.	890	25,999,439	997,404	26,996,843	3,083,507	3,731,572	77,717	747,011	17,303,958	11,586,966	3,878,000	6,013,487	4,390,290
Kansas, Oklahoma & Gulf	328	403,396	1,143	404,539	410,310	33,372	16,527	120,212	270,383	33,461	55,276	59,943	59,943
10 mos.	328	4,022,502	11,940	4,034,442	4,072,048	507,138	143,566	1,137,560	2,265,216	1,806,832	687,523	807,671	562,611
Lake Superior & Ishpeming	156	408,240	67	408,307	55,450	40,330	1,526	105,463	211,637	301,882	105,705	202,650	170,864
10 mos.	156	2,685,170	833	2,685,993	4,303,075	423,675	18,326	760,165	1,672,355	1,670,930	796,645	925,664	278,654
Lehigh & Hudson River	96	270,097	.....	270,097	271,092	46,572	7,107	8,067	215,848	53,246	23,963	8,745	28,006
10 mos.	96	2,513,348	.....	2,513,348	4,462,653	356,944	71,113	972,448	1,827,602	695,051	286,737	184,336	183,375
Lehigh & New England	193	816,376	.....	816,376	824,125	85,696	10,065	226,834	450,771	373,354	162,382	205,652	144,498
10 mos.	193	6,074,310	.....	6,074,310	6,137,425	937,507	102,031	1,909,808	3,922,762	2,924,329	1,099,923	1,258,411	989,636
Lehigh Valley	1,253	5,977,335	323,669	6,301,004	6,658,300	1,036,422	136,314	1,308,012	5,433,670	1,204,630	444,466	478,411	739,415
10 mos.	1,253	52,942,307	3,723,600	56,665,907	8,161,053	9,971,129	1,308,012	27,988,026	49,843,246	10,634,595	4,677,127	4,216,724	4,162,337
Louisiana & Arkansas	756	1,291,101	59,094	1,350,195	1,662,268	125,218	45,196	45,196	837,497	573,101	236,209	218,240	212,500
10 mos.	756	12,266,074	537,373	12,803,447	1,861,788	1,376,154	399,633	4,159,086	8,179,346	5,140,682	2,188,123	1,981,831	1,736,747

Table continued on next left-hand page.

212,500
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 Louisiana & Arkansas
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Greetings of the Season

Westinghouse Air Brake Co.

WILMERDING, PA.

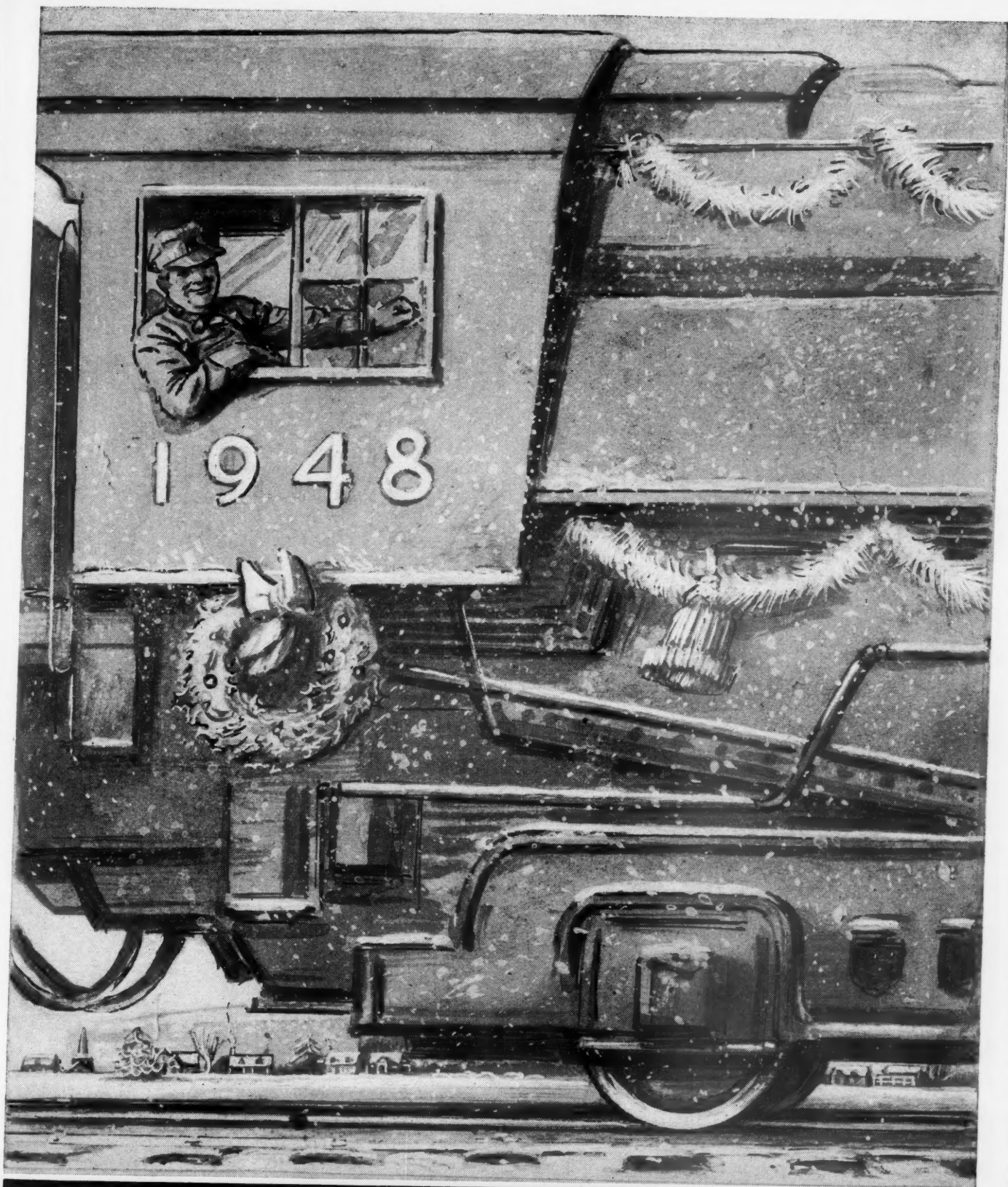


REVENUES AND EXPENSES OF RAILWAYS

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1947—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net railway income				
		Freight	Passenger (inc. misc.)	Total	Way and structures	Maintenance of equip- ment	Traffic		Trans- portation	Total	from operation	operating income	
Louisville & Nashville	10 mos.	4,766	\$14,222,866	\$1,087,855	\$16,208,111	\$3,093,189	\$3,804,416	\$298,067	\$6,874,353	\$14,689,218	\$1,518,893	\$731,264	\$1,966,407
Maine Central	10 mos.	988	132,466,621	12,947,706	151,407,380	22,325,623	33,115,316	27,913,910	64,397,324	128,208,019	19,459,721	12,593,166	12,988,200
Midland Valley	10 mos.	988	1,563,839	130,304	1,694,143	378,554	378,554	17,973	7,468,886	14,610,430	287,191	97,815	224,829
Minneapolis & St. Louis	10 mos.	334	178,355	10	181,473	3,022,942	3,336,023	176,823	7,468,886	14,610,430	4,163,792	1,914,663	1,196,488
Missouri & Arkansas	10 mos.	348	1,591,337	140	1,631,608	367,144	367,144	30,251	53,378	128,646	52,837	21,266	34,920
Missouri & Illinois	10 mos.	1,408	1,721,429	10,600	1,732,029	1,795,853	2,247,619	104,866	588,030	1,134,554	485,054	212,704	186,289
Missouri Pacific	10 mos.	3,224	3,751,539	127,161	4,053,354	546,687	508,332	58,917	1,329,136	2,236,591	1,513,763	690,010	1,048,838
Spokane International	10 mos.	152	152,382	1,249	1,648,843	3,926	16,207	3,819	52,121	112,945	51,898	6,094	39,029
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
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St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
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St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
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St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
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St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,482,028	16,535	1,602,507	350,843	163,241	37,109	557,674	1,184,485	418,022	141,723	133,480
St. Paul & Northern Pacific	10 mos.	148	1,4										

376 1,480,508 2,563,678 4,221,847 586,961 705,769 27,936 2,219,516 3,620,809 85.8 96,250,871 59,953,370 27,396,411 19,672,123
 376 12,075,007 25,910,524 40,091,503 5,060,725 6,458,101 253,535 20,760,029 33,300,340 83.1 6,791,163 4,732,586 -1,015,211 -50,718
 Oct. 10 mos. 1,079,890



Merry Christmas *and a*
 Happy New Year
Members of the Hunt-Spiller Organization

December 20, 1947

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1947—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net railway income	
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Equipment	Traffic		Net railway from operation	Net railway operating income
Pennsylvania-Reading Seashore Lines	389	\$555,431	\$236,787	\$832,489	\$189,434	\$130,538	\$9,845	109.7	\$80,245	\$316,898
Pittsburgh & Shawmut	389	4,840,089	4,637,225	9,511,281	1,873,709	1,147,332	102,977	91.7	819,522	1,077,118
Pittsburgh & Shawmut	97	2,095,577	.....	2,095,577	393,956	296,330	35,611	70.2	77,657	56,585
Pittsburgh & Shawmut	10 mos.	.....	.....	.....	.....	.....	.....	66.3	708,377	170,167
Pittsburgh & West Virginia	136	597,359	18	616,841	113,458	120,614	36,710	74.5	157,400	108,638
Reading	136	5,414,950	31	5,448,663	950,569	1,142,722	345,231	74.4	1,448,327	978,414
Reading	1,356	9,468,589	636,697	10,105,286	1,756,356	1,837,422	136,058	76.3	2,523,857	1,200,761
Reading	1,357	84,066,585	6,279,014	90,345,599	14,877,978	18,100,229	1,145,062	77.3	21,729,715	11,023,480
Richmond, Fredericksburg & Potomac	118	1,212,855	435,308	1,648,163	263,793	306,329	20,080	81.7	332,589	194,052
Rutland	118	11,988,766	6,010,206	17,998,972	2,364,638	2,834,574	173,996	72.8	5,428,532	2,728,141
Rutland	407	4,336,630	53,383	4,390,013	801,341	84,283	14,812	84.5	288,574	36,201
Rutland	407	3,530,619	489,779	4,020,398	811,731	938,445	2,742,327	99.4	26,857	369,273
St. Louis-San Francisco	4,645	8,175,034	617,414	8,792,448	1,308,671	1,526,032	235,066	76.8	2,193,583	1,169,270
St. Louis, San Francisco & Texas	1,605	7,225,936	6,075,330	13,301,266	12,315,652	14,268,017	2,061,469	80.0	16,943,444	8,988,749
St. Louis, San Francisco & Texas	160	253,767	7,371	259,600	47,460	28,913	15,473	86.2	38,503	17,362
St. Louis, San Francisco & Texas	160	3,037,642	120,459	3,158,101	492,983	319,375	141,337	75.6	810,191	286,860
St. Louis Southwestern Lines	1,575	4,645,752	90,688	4,736,440	489,144	580,646	146,314	62.5	1,833,124	1,049,438
Seaboard Air Line	1,575	41,871,298	721,841	42,593,139	5,772,133	5,337,504	1,250,792	61.6	16,925,525	7,153,963
Seaboard Air Line	4,156	7,815,330	901,424	8,716,754	1,508,058	1,839,079	313,793	84.3	1,480,138	732,969
Southern Railway	6,484	16,835,443	1,701,069	18,536,512	2,658,019	3,431,347	2,765,010	81.2	18,358,226	8,168,071
Alabama Great Southern	316	1,341,623	162,147	1,503,770	273,129	334,680,918	70,764,231	75.9	4,778,618	2,279,430
Alabama Great Southern	316	11,408,406	1,324,285	12,732,691	15,741,919	17,522,065	2,765,010	78.7	2,889,219	1,937,396
Cinn., New Orleans & Texas Pacific	337	2,752,977	280,949	3,033,926	358,581	623,119	56,697	66.1	1,068,175	606,888
Georgia Southern & Florida	337	24,719,772	2,451,488	27,171,260	3,583,889	5,834,880	834,770	68.0	9,112,691	5,056,630
Georgia Southern & Florida	397	376,706	81,050	457,756	6,952	211,534	6,952	80.6	32,258	15,425
Georgia Southern & Florida	397	3,729,795	898,811	4,628,606	661,074	1,058,001	71,196	78.6	1,080,205	419,536
New Orleans & Northeastern	204	1,035,550	79,519	1,115,069	139,164	100,154	16,593	51.1	582,106	285,541
Southern Pacific	8,195	7,720,352	658,967	8,379,319	1,004,739	1,200,785	167,617	58.6	3,681,052	1,709,520
Southern Pacific	8,221	31,533,882	3,760,438	35,294,320	6,879,481	703,911	14,941,784	76.7	8,789,841	4,364,825
Texas & New Orleans	4,316	8,789,463	828,044	9,617,507	1,257,242	1,415,204	195,011	70.0	3,066,164	1,275,062
Spokane, Portland & Seattle	944	78,128,161	9,405,011	87,533,172	11,494,426	12,697,607	1,827,996	69.1	28,947,148	12,882,006
Spokane, Portland & Seattle	944	2,012,556	88,636	2,101,192	594,241	250,832	19,605	76.4	522,171	204,696
Tennessee Central	286	3,460,084	6,225	3,466,309	4,436,572	2,178,843	177,336	78.0	4,027,414	1,642,415
Texas & Pacific	286	3,139,134	81,306	3,220,440	61,730	67,594	8,180	88.7	42,235	16,369
Texas & Pacific	1,854	5,240,238	484,905	5,725,143	7,001,642	7,986,108	1,548,423	75.9	12,447,064	4,123,599
Texas Mexican	162	205,844	105	205,949	33,193	67,594	5,865	51.8	115,809	38,293
Toledo, Peoria & Western	239	2,128,902	1,071	2,129,973	360,909	227,272	49,222	56.6	1,054,482	377,913
Union Pacific System	9764	33,422,832	3,571,514	36,994,346	4,963,581	6,759,637	657,384	71.3	11,337,965	5,577,313
Utah	9775	269,278,201	38,692,554	307,970,755	44,627,513	56,509,888	6,992,424	73.8	87,338,059	46,006,801
Utah	111	126,227	.....	126,227	126,291	54,938	751	116.9	9,635	21,341
Virginian	111	1,533,214	.....	1,533,214	1,534,341	468,974	6,885	92.4	116,775	142,188
Wabash	661	3,104,858	4,937	3,109,795	351,392	604,988	37,528	59.1	1,330,722	690,000
Wabash	2,393	28,548,288	60,600	28,608,888	3,185,917	6,423,796	345,476	59.2	12,394,350	6,054,700
Ann Arbor	2,393	7,751,261	488,771	8,240,032	1,243,769	1,165,280	2,368,577	73.2	2,333,690	906,320
Western Maryland	2,393	68,041,269	4,654,561	72,695,830	11,434,315	10,702,942	2,246,023	74.1	20,090,494	7,747,719
Western Maryland	294	676,971	7,295	684,266	79,554	130,049	22,460	76.0	167,578	76,345
Western Maryland	294	6,024,074	50,761	6,074,835	787,466	1,219,865	11,562	80.0	1,273,679	602,482
Western Maryland	837	3,587,657	1,699	3,589,356	3,734,532	471,105	70,211	65.9	1,271,935	517,000
Western Maryland	837	32,996,932	156,055	33,152,987	4,829,413	5,910,011	623,687	68.9	10,783,508	4,604,000
Western Pacific	1,195	3,905,565	147,249	4,052,814	555,894	470,715	119,955	62.8	1,538,261	658,879
Wheeling & Lake Erie	1,195	29,578,484	1,813,555	31,392,039	3,209,701	4,909,937	1,223,745	77.8	7,176,186	2,813,625
Wisconsin Central	505	2,848,082	.....	2,848,082	543,911	346,910	62,501	64.7	1,037,077	618,430
Wisconsin Central	505	23,715,256	13	23,715,269	3,134,452	3,888,113	552,348	64.6	8,781,311	4,978,752
Wisconsin Central	1051	2,274,690	37,572	2,312,262	354,461	55,579	964,591	73.6	241,117	246,487
Wisconsin Central	1051	20,015,584	492,512	20,508,096	2,560,242	3,310,020	499,425	71.8	6,196,107	2,066,348

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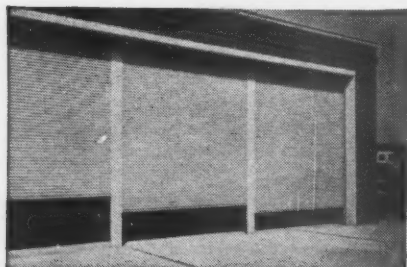


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Current Publications

PAMPHLETS

Railroad Equipment in Chile, prepared by Thomas J. Murphy. 5 pages. Issued by the Office of International Trade, United States Department of Commerce. Available from the Government Printing Office, Washington 25, D. C. Price, five cents.

There are no builders of complete units of railway rolling stock and equipment in Chile, but there are several assemblers of this equipment, working with imported parts. These firms are listed and the capacity of their plants given. Chilean imports of railway equipment from the United States, United Kingdom and Germany from 1939-46, by commodities, are given and the railway construction program for 1947 is outlined.

Comparative Statement of Railway Operating Statistics, Individual Class I Steam Railways in the United States, for the Years Ended December 31, 1946 and 1945. 63 pages. Prepared by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Washington, D. C. Available from the Government Printing Office, Washington 25, D. C. Price not given.

Contains, for each Class I railway, statistics on revenues and expenses, income and balance sheet items, traffic, freight commodities, freight and passenger train performance, yard service performance, fuel and power for locomotives, motive power and car equipment, and wages.

Railways at War. 71 pages, illustrations. Issued by the Public Relations Section, Department of Railways, New South Wales, 19 York st., Sydney, New South Wales, Australia. Free.

In these pages is told the story of the New South Wales Government Railways during the war years 1939 to 1945. Included are chapters on the adjustments made by the railways when the war broke out, wartime operations, construction activities, production of aircraft and other implements of war, and staff activities. It concludes with a roll of honor of railway employees who died in active service.

Railways at Work. 47 pages, illustrations. Issued by the Public Relations Section, Department of Railways, New South Wales, 19 York st., Sydney, New South Wales, Australia. Free.

Each page of this little booklet contains a photograph and brief explanation of some phase of railroad operation, its object being to outline some of the more interesting aspects of the railways at work.

The Railway Handbook, 1947-1948, compiled under the direction of the editor of the Railway Gazette. 128 pages. Published by the Railway Publishing Company Limited, 33 Tothill st., Westminster, S.W.1, London, England. Price, 5 shillings.

Established in 1934 to provide the railway student with a collection of useful statistics and other information at low price, this edition will be the last one to be issued containing details of the individual companies in their present form, as the



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Nationalization Act goes into effect on January 1, 1948. Many of the tables and much of the information in this booklet are also included in the Universal Directory of Railway Officials and Railway Year Book (noted in the *Railway Age* of September 6, page 94). Apart from tables giving international comparisons, the data are confined mainly to Great Britain and Ireland.

None since 1937
Preliminary Abstract of Railway Statistics (Steam Railways, Railway Express Agency, and the Pullman Company) for the Year Ended December 31, 1946. 44 pages. Prepared by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Available from the Government Printing Office, Washington 25, D. C. Price, 40 cents.

Contains a recapitulation of selected items from the annual reports of the Class I line-haul steam railways, a breakdown of operating revenues and expenses assignable to freight and passenger service; similar statistics for Class I switching and terminal companies; selected statistics for individual Class I railways; and abstracts of the reports rendered by the Railway Express Agency and the Pullman Company.

Summary Table of Statistical Returns of Railways of Great Britain, 1946. 9 pages. Published by His Majesty's Stationery Office, London, England. Available in this country from the British Information Services, 30 Rockefeller plaza, New York 20. Price, 20 cents.

This table represents a continuation of the table published last year covering the years 1938 to 1945. Included are statistics on mileage, amount and capacity of equipment, freight and passenger traffic, and train and locomotive mileage. Some statistics for the London Passenger Transport Board are also included. For comparative purposes figures for 1938, 1943, 1944 and 1945 are given.

Sophisticated Train Catchin' in New York City and vice versa, by Don Herold. 23 pages, illustrations. Published by the Baltimore & Ohio Railroad Co., Baltimore 1, Md. Free.

The conveniences of the Baltimore & Ohio motor coach service as a means of entering or leaving New York are recounted. These advantages are not only described, but are amusingly illustrated by the author.

A Year Book of Railroad Information, 1947 Edition. 96 pages. Published by the Eastern Railroad Presidents' Conference Committee on Public Relations, 143 Liberty st., New York 6. Free.

Contains statistics for 1946 and several previous years on the railways plant, service, rates, earnings, purchases, employees and operations. The figures, with a few exceptions, deal with Class I railroads.

Doing the Job. 14 pages, illustrations. Published by the Netherlands Railways, Utrecht, Netherlands.

The rehabilitation of the Dutch railways is outlined in this pamphlet. A series of "before and after" pictures helps to emphasize the progress made by the Dutch railway men in restoring the lines to service.

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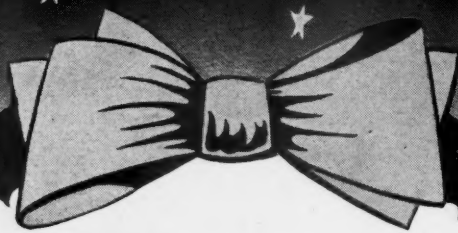
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